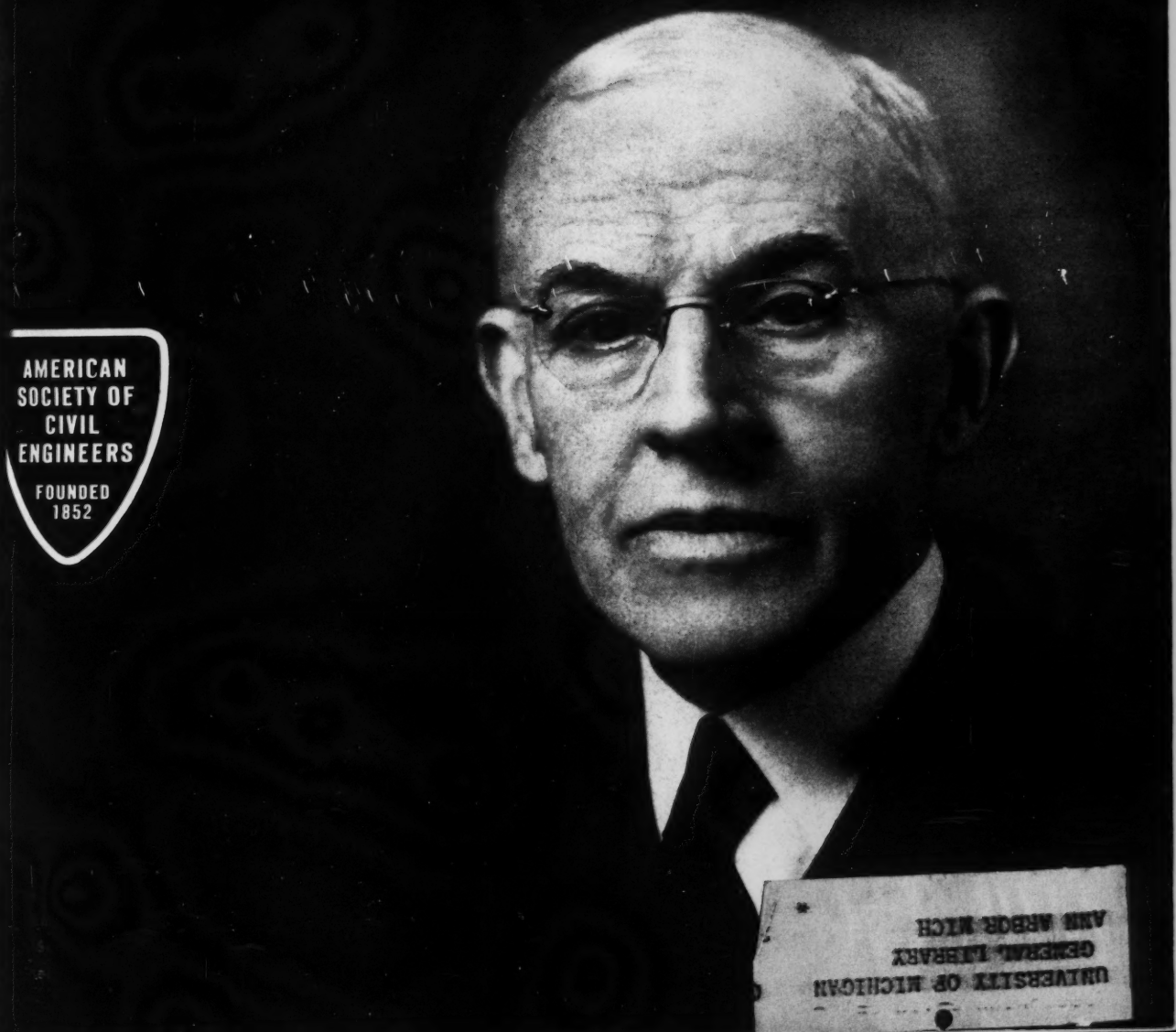
ENGINEERING NEWS-RECORD



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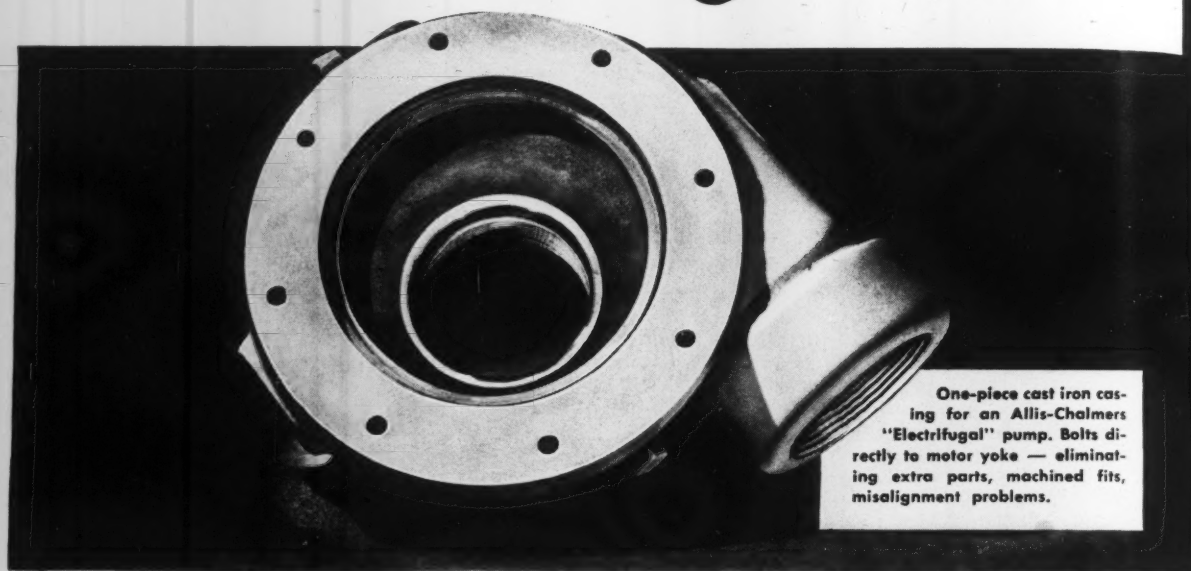
[PUMP TIPS FROM ALLIS-CHALMERS—ONE IN A SERIES]

How to make CASINGS Last Longer . . .



One-piece cast iron casing for an Allis-Chalmers "Electrifugal" pump. Bolts directly to motor yoke — eliminating extra parts, machined fits, misalignment problems.

ABRASION AND CHEMICAL REACTION are the major causes of casing wear. For if liquid is gritty, or contains foreign matter; or casing is not constructed of the right materials for the pumping service required — casing life is materially shortened. A minor cause of direct casing wear is misalignment.

Original engineering of a pump can help prevent this wear. For example, Allis-Chalmers "Electrifugal" pump minimizes trouble from these sources in two ways: 1 — casings can be supplied in iron, bronze, stainless steel or other materials — depending upon type of service. 2 — It is a *unit-design* pump. Both impeller and motor are mounted on *one* shaft and in *one* frame. This means fewer parts, fewer fits — no chance for misalignment.

However, regardless of pump design, scheduled maintenance is still necessary if you expect to get longest wear from your casings. Some ways to do it . . .

▶ Check all piping supports regularly to see that they effectively supporting the load.

▶ Every 6 months check piping itself to see whether it h shifted in any manner. Disconnect suction and discha piping to see if it springs in any direction. Check the ali ment of pump and motor — shimming up units as requir

▶ Once a year clean and inspect casing for wear, depos or pitting. Make necessary repairs.

▶ If foreign matter is being sucked into pump, wearing c ing unduly, provide the intake end of suction piping wi a suitable screen.

▶ Send for your *free* copy of "Handbook for Wartime Ca of Centrifugal Pumps". This valuable booklet applies to *makes* of pumps; contains *no* advertising. ALLIS-CHALMER MFG. CO., MILWAUKEE 1, WIS. A-17

ALLIS-CHALMERS PUMPS

Allis-Chalmers builds all types and variations of pumps shown at right. Capacities from 10 to 150,000 gpm—heads to 2500 lbs.

Single Suction | Double Suction | Double Suction Multi-Stage | Open Impeller | Mixed Flow | Axial Flow (Propeller)

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • JUNE 7, 1945 • VOLUME 134 • NUMBER 23

Army Engineers abandon public contract awards

Announcement by district engineer at Los Angeles indicates that all future construction work will be by privately negotiated contracts

Complete abandonment of all public opening of bids for construction work of the U. S. Engineer Department is indicated in an announcement made June 1 by Col. Rufus W. Putnam, district engineer, Pacific Division, at Los Angeles. Confirmation of this change in policy could not be obtained at the Pacific Division office in San Francisco nor immediately at the office of the Chief of Engineers in Washington. As this issue was going to press, contact was made with Maj. Gen. Thomas M. Robins.

General Robins said that a uniform practice of handling bid openings had been adopted by the Corps of Engineers. In the past, different practices of handling bids had prevailed in different districts. In the future, bids will be opened privately and negotiations instituted. As soon as an agreement has been reached with the successful bidder, all bids will be made public. General Robins said that the practice of making bids public before negotiations were begun had not been found satisfactory.

No change in the law

The announcement from Col. Putnam's office said: "This is not a new law. The regulation is part of the First War Power Act of Dec. 18, 1941, and has been in effect since that time. The difference in this district is that Col. Putnam has been liberal in his interpretation of it. Now, higher authority in Washington has decreed that the strict letter of the regulation shall be observed."

Under the new arrangement put into effect at the Los Angeles district office, an explanatory statement will be inserted in the invitation for bids, which will read as follows:

"In compliance with the present policy of the War Department, the public opening of offers has been discontinued. You are advised accordingly that your offer will be opened and considered by this office privately. The right is reserved to reject any and all offers as the interests of the government may require, or to waive any informality in offers received and further to accept or reject any or all items of offer. The decision of the contracting officer in this matter will be conclusive."

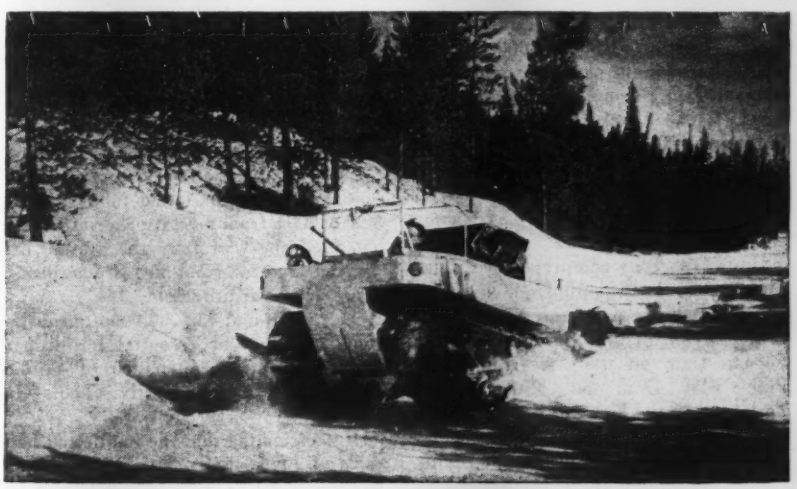
Negotiated contracts

Col. Putnam's announcement pointed out that negotiating contracts rather than awarding them through formal advertising and public opening of bids has been found very helpful in expediting work.

"Negotiation means only that the government is free to accept or reject any offer . . . but not inflexibly obligated to accept any offer," said Col. Putnam. "The low offer usually gets the contract, but the interests of the government can best be served by negotiating whenever otherwise acceptable offers are considered to be out of line in any respect. Such negotiations will first be with the lowest offerer."

Policy changed in 1939

The Navy began negotiating contracts in 1939 on a cost-plus-a-fixed-fee basis under the defense program, and on June 22, 1940, the Army received authority to take similar action. As the defense program expanded, the Army Engineers, in May, 1942, abandoned competitive bidding (*ENR* June 4, 1942, vol. p. 893) and began soliciting informal bids as the basis for negotiated contracts. That was when the architect - engineer - management contracts were inaugurated.



Snow weasel tested for forest service

Officially the Army's T-15 cargo carrier, a 2-passenger vehicle originally designed for Alaskan combat, the snow weasel is being tested for routine forestry tasks. A pair of these snow cruisers has been purchased for use by the U. S. Forest Service, according to John W. Spencer, regional forester for the Rocky Mountain region.

Shown above, speeding along in fifth gear at about 23 mph., the weasel handles easily on hard-packed snow. Its 18-in. wide treads enable the vehicle to negotiate 45 deg. slopes in snow-covered forest country. Built low like a jeep, the T-15 can carry a payload of 1,260 lb. and has a cruising range on a tankful of gas of 125 miles.

Flood-control program for California prepared by the Army Engineers

Plan calls for ultimate expenditure of $440,000,000 on dams and levees in Sacramento and San Joaquin valleys

Flood-control plans for the valleys of the Sacramento and San Joaquin rivers in California were made public late in May by the Pacific Division, Corps of Engineers, U. S. Army. Including projects already authorized by Congress but held up due to the war, the plans provide for ultimate construction of 25 reservoirs, with facilities for generating hydro-electric power where feasible; revision and extension of certain existing levees and appurtenant works; and additional levees, channel improvements and related facilities throughout the Central Valley. First cost of all projects is estimated at $440,000,000.

Referred to the Board of Engineers for Rivers and Harbors in Washington, D. C., by Brig. Gen. Philip G. Bruton, division engineer, Pacific Division, the report, authorized by Congress in 1936 and 1938, concludes that the program should be adopted, with future necessary modifications, as a basis for flood protection coordinated with water conservation for other use.

Initial program outlined

As an initial step in the progressive development plan, the report recommends authorization by Congress now of projects costing about $46,000,000. Included are multi-purpose dams and reservoirs on Fresno River, Chowchilla River, Cache Creek, Putah Creek and Consumnes River; levee and channel improvements in the Cache Creek drainage basin, on Mormon Slough, on Deer Creek and in the Tulare Lake sump area.

Units in the comprehensive plan which have been authorized by Congress include a dam and reservoir at Iron Canyon on the Sacramento River, Folsom Dam on the American River, Pine Flat Dam on Kings River, Terminus on the Kaweah River, Success Dam on Tule River, Isabella on the Kern River, New Melones on the Stanislaus River and eight other structures. Also authorized are 26 projects for channel and levee improvements.

The announcement from General Bruton's office said that this work will be coordinated with plans of the Bureau of Reclamation for the same streams but gave no details as to how the coordination was to be effected.

Secretary of the Interior Harold L. Ickes, in testimony before committees of Congress, proposed that a federal authority be set up to control the rivers of the Central Valley. This proposal is actively opposed in California, where Secretary Ickes is charged with having persuaded the Bureau of the Budget to impound funds that otherwise could have been used by the Army Engineers to start some of the proposed flood-control projects.

Meanwhile, the California Senate unanimously passed a bill appropriating $30,000,000 to pay the state's share of the proposed projects.

• • •

Lanham Act increase of $30 million is asked

Passage of a bill (H.R. 3278) to authorize the appropriation of an additional $30,000,000 to be spent under the provisions of the Lanham Act for public works in war-impacted areas has been recommended by the Committee on Public Buildings and Grounds of the House.

While none of this money is intended for new construction needs, it was urged that the use of unallotted funds (about $7,000,000) from past appropriations be extended one year from the present expiration date of June 30 for emergency construction requirements.

The additional $30,000,000 appropriation is said to be essential for proper operation and maintenance of public service facilities—primarily schools—in war areas.

It is estimated that the unallotted balance of funds under Title II of the act for war public service projects will be about $7,000,000 on June 30, 1945. The unappropriated balance of current authorizations amounts to $3,000,000. Thus, the unallotted balance, the unappropriated balance and the proposed increase would make available for community projects about $40,000,000 in the fiscal year 1946.

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Sewerage construction regulations are relaxed

A major change in the basic wartime regulations for public santitary sewerage facilities is contained in an amendment to P-141 issued May 29 by the War Production Board's Office of Civilian Requirements.

The revised order authorizes operators to construct plant additions, including buildings, involving up to $25,000 worth of materials, without WPB approval. Before this amendment, construction, other than buildings, was limited to a materials cost of $1,500.

The revised order provides for an AA-3 rating and allotment symbol MRO-P-141 to be used for plant additions, but the AA-1 rating is retained for materials and equipment necessary in maintenance, repair and operating supplies. Materials to be used in minor additions are not to be considered as part of inventory, and deliveries and withdrawals of such materials are no longer restricted.

These changes no longer require operators to file form WPB 3445 for extensions of sewerage facilities to serve premises that are built or remodeled under preference rating orders in the P-55 series, authorizations under Construction Order L-41, or under any Petroleum Administrative order by the Petroleum Administration for War.

• • •

Sewage works convention at Toronto canceled

In accord with the requirements of War Committee on Conventions of the Office of Defense Transportation, the Board of Control of the Federation of Sewage Works Associations has postponed for an indefinite period the annual convention which had been planned for Toronto, Ont., on Oct. 1-3.

The regular annual business meeting of the Board of Control will be held on Oct. 17-18.

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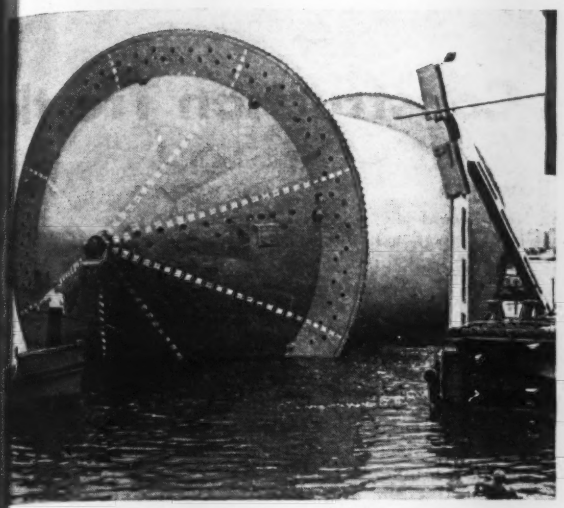
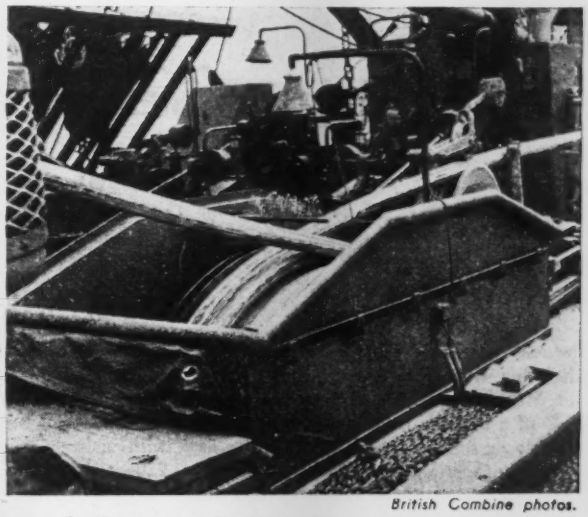




British Combine photos.

Pipelines laid in English Channel carried gas and oil to France

One of the best kept secrets and most effective operations of the war was the laying of twenty 3-in. dia. pipelines on the bottom of the English Channel through which more than 120,000,000 gal. of petroleum products was pumped to the armies in France. The first four lines, from the Isle of Wight to Cherbourg, were put in operation Aug. 12. Subsequently, 16 additional lines were laid from Dungeness to Boulogne. Fuel was finally pumped from England to as far as Frankfort-on-Main.

Two types of pipes were used. One was 3-in. thin-walled steel pipe connected by welding into lengths sufficient to cross the channel. Ordinary pieces of the pipe first were connected into 4,000-ft. long units laid out on the ground. This pipe then was wound on huge floating drums or "bobbins", (shown at left in the illustration above) 40 ft. in dia. and 60 ft. long. As a 4,000-ft. length was wound on, it was joined to the next length by welding and winding then continued. Fully loaded drums weighed 1,600 tons and were towed by tugs, unrolling to release the pipe.

The other scheme utilized layered cable similar to that used for submarine cable but without the core. It was quite stiff though flexible enough to wrap around a 6-ft. dia. drum and was laid full of liquid to prevent collapse at channel bottom pressures. This pipe was laid by a cable-laying vessel (as can be seen at right in the illustration above) in a manner similar to ordinary cable laying.

Devised by A. C. Hartley, chief engineer of the Anglo-Iranian Oil Co., this type of pipe could be made continuous to any length. Most of the flexible pipe was supplied by United States manufacturers. Procurement in this country was handled by Col. A. K. Eaton, chief of the supply division, North Atlantic Division, Corps of Engineers. A new plant was started in April, 1944, and pipe delivery commenced July 5. Some 64 miles of the line was delivered by Sept. 16 by the Harbishaw Division plant of the Phelps Dodge Corp. at Yonkers, N. Y. General Electric Co., Okinite-Callender Cable Co. and General Cable Corp. shared the work.

The pipe line idea was British in conception, having been suggested by Lord Louis Mountbatten. So far as is known here, all of the pipe laying was done by the Royal Navy.

Chicago voters approve big building program

By a vote of 6 to 1, Chicago voters on June 4 approved seven bond issues totaling $54,500,000 for immediate and postwar construction. Approved also in approximately the same ratio were the two metropolitan transit propositions, the Illinois state legislature's act creating the Metropolitan Transit Authority and (*ENR* Apr. 12, vol. p. 544) the city council's ordinance empowering the transit authority to acquire and operate the street car and rapid transit lines.

Bond issues include $24,000,000 for the improvement and extension of the city's park system, $15,000,000 for airport development; $5,000,000 to finance slum clearance, to be matched by a similar amount of state funds; $5,000,000 for city repair shops and garages; $1,500,000 to purchase new equipment for the collection and disposal of refuse; $2,000,000 for police and fire stations; and $2,000,000 for city playgrounds.

Research and statistics division created in FWA

A division of research and statistics has been established within the Bureau of Community facilities of the Federal Works Agency, Maj. Gen. Philip B. Fleming, Administrator, announced June 1. The division will be responsible for the collection and analysis of statistics and the preparation of reports necessary to the efficient functioning of the bureau in administering postwar planning and Lanham Act Funds. It will be responsible for the accumulation, presentation, and interpretation of data on the construction industry as it affects the administration by the bureau of the programs.

Robinson Newcomb, formerly director of the construction research division of the War Production Board, which has been abolished, is the director of the bureau's new division. Mr. Newcomb entered government service in 1928 as an economist

Offshore breakwater proposed for New Jersey

An offshore breakwater from Sandy Hook to Bay Head, N. J., a distance of about 30 miles, has been proposed by Sigvald Johannesson, chief of the New Jersey Highway Planning Bureau, as an alternative to the proposed ship canal across New Jersey, which is being opposed by the bureau because of its serious effect on the state's highway system. In a report to Spencer Miller, state highway commissioner, Mr. Johannesson states that such a barrier, placed about one mile off shore, could be built at a fraction of the cost of the proposed canal and would serve the same purpose. Further, a breakwater in that location would check the serious damage now being done by the sea to that section.

Mr. Johannesson states that the average depth one mile off shore is less than 50 ft. and that the bottom is firm sand. Ample rock for the seawall is said to be available.

Bailey Bridge Serves as Construction Trestle

Waldo G. Bowman
Editor, Engineering News-Record
(From the European Theater of Operations)

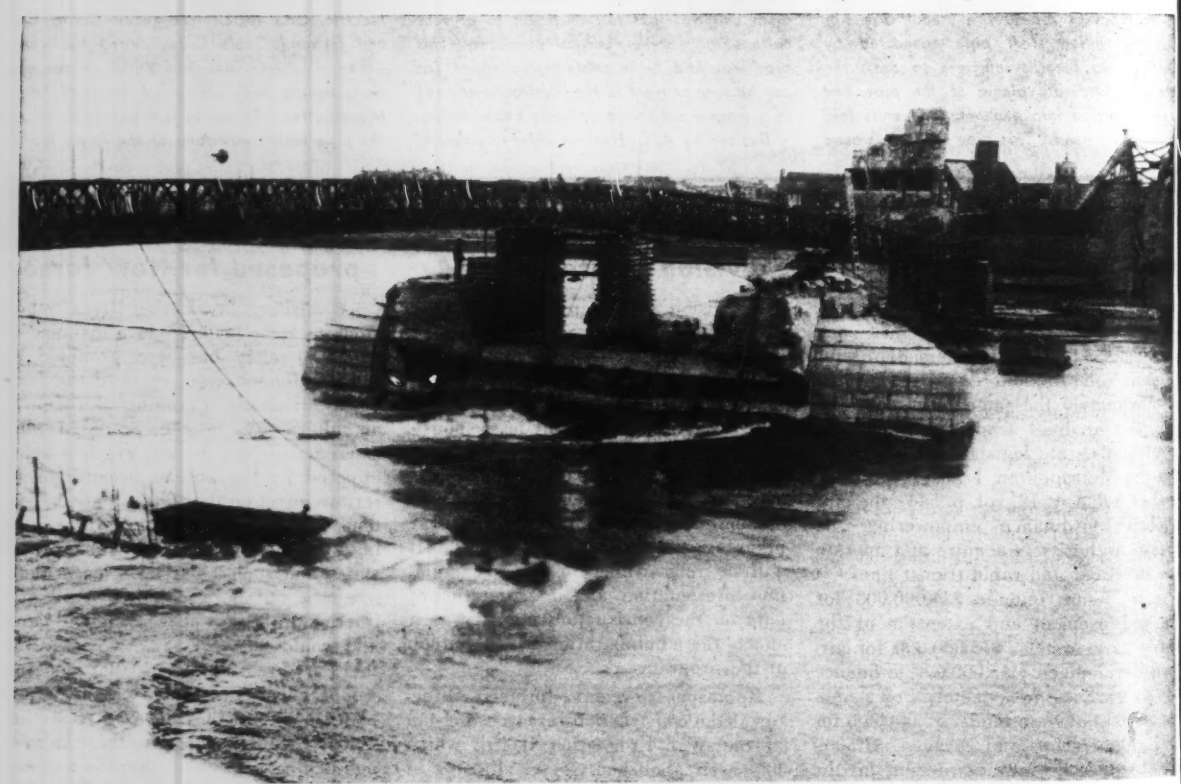
The military bridging operation which involved rebuilding the Wilhelmina Bridge over the Meuse River at Maastricht, Holland, introduced the use of a Bailey bridge as a construction trestle, a scheme which is regarded as having peacetime possibilities on bridge work in the United States. From the Bailey bridge concrete for repairing some of the old pier tops was poured, steel for new pier tower bents was placed and, finally, beams for the new superstructure were erected. The bridge had another interesting characteristic —the building of the new superstructure in one span on top of an existing through-truss, one end of which had been dropped into the water.

The Wilhelmina Bridge had originally consisted of a series of flat concrete arches, five of about 80 ft. span over the river and one of 185 ft. over an adjacent canal. The bridge had been damaged early in the war when the Dutch blew out the canal span, and this had been replaced by the Germans with a steel through truss of about 220 ft. span, taken from some other location. Although too long for the canal site, it could be used by letting it extend to new abutments set back from the river bank. When we captured the bridge, the five river spans were completely destroyed, and the river end of the through truss had been dropped to the bottom of the canal. The tops of most of the piers had been blown off.

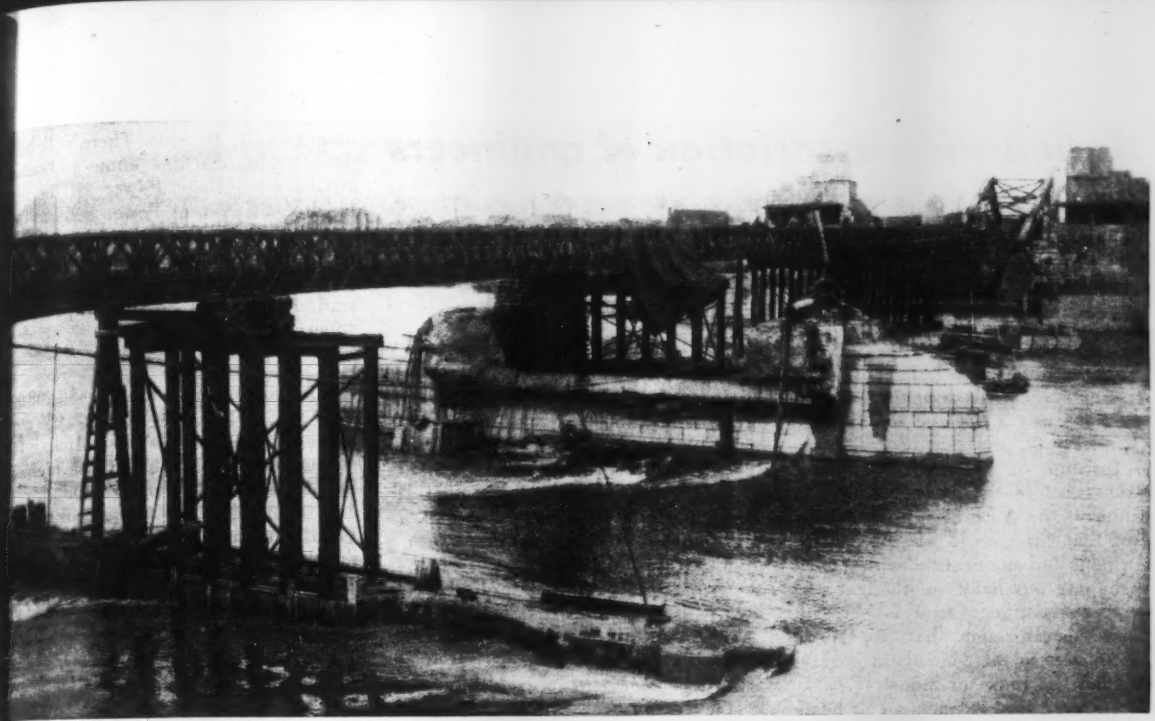
Design of temporary structure

The structure our Engineers designed to serve as a temporary replacement was of rolled stringer type on steel tower bents set on the remains of the old piers. This type of construction was also to be carried over the through truss, the bents being supported at the panel points as conditions permitted. The tower bents on the piers averaged about 20 ft. high and were about 15 x 2[illegible] ft. in plan. The spans each contained six 32-in. rolled beams spaced 3 ft 7 in. apart and carrying a 20-ft. timber deck. A 4½-ft. sidewalk was cantilevered out on one side.

The construction plan originally proposed involved the use of floating equipment, but a serious flood right at the time that work needed to be begun made this impossible. It was then that the scheme for using the Bailey for a construction trestle was devised. Col. Helmer Swenholt, commanding officer of the 332nd Engineer General Service



Launching the four-span Bailey bridge over crib supports set on the old piers of the Wilhelmina Bridge at Maastricht, Holland. The Bailey bridge served as a construction trestle for the temporary reconstruction of the Wilhelmina Bridge.



aving provided access to the piers for concrete cap placing and steel tower erection, the Bailey bridge has been slid to e centerline of the new construction so that the beams of the superstructure can be set on either side of it.

egiment, who had the bridge in his harge, gives credit for the scheme to . Col. Richard L. Davis, one of his ttalion commanders who was a high- ay and railroad contractor before the ar.

Falsework not required

The advantage of the Bailey was that could be launched from the shore, ithout any falsework and only a mini- um of work from boats. Actually e only boat work required was to aid building timber cribs on the ex- ting parts of the piers to serve as pports for the 325-ft. four-span ailey, of double-single type.

A 14-S mixer was set up on the ridge at the various pier locations, d the necessary concrete lifted over e side by a bucket on the lines of ½-yd. crawler crane. Trucks backed t on the Bailey with the necessary ggregates and cement.

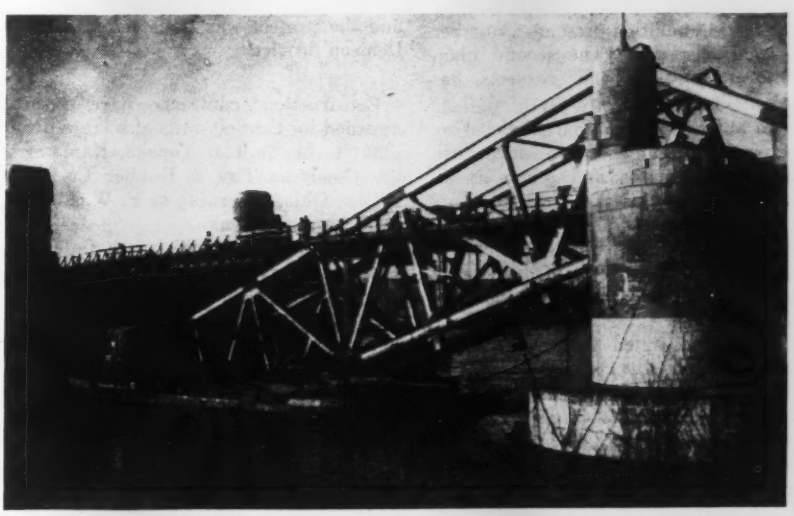
The steel tower piers were pre- bricated and sent to the job knocked own. One bolt hole at each joint ermitted the towers to be assembled fter which the permanent joints were elded.

After the tower bents were complete, e Bailey was slid over onto them o that it would have more strength handling the superstructure erection nd also so that it would be on the enterline of the construction. It was asy to move the Bailey sideways with and jacks.

The superstructure beams were rought out on the Bailey in trucks nd lifted over the side onto the piers. As soon as three beams had been put over each side and blocked in this temporary position, the Bailey was retracted from that span, permitting the beams to be slid over to their permanent locations, and the remainder of the floor steel and the deck constructed. The sway bracing of these spans consisted of timber spreaders and yoke rods, so that no welding was required after the tower piers were completed.

Truss welded to bents

The job of supporting the new bridge on the inclined through truss was troublesome, but not particularly difficult. Every bent support was of course, different, and attached to the truss by a different type connection devised by the welder on the spot. There was some doubt as to the stability of the down-end of the truss which rested on the bottom of the canal, for any serious settlement would badly distort if not wreck the new superstructure. The only concession to this fear that could be made, however, was to pile rock around the down-end to prevent scour and to build a fender upstream which would deflect any debris away from this vital spot.



New construction is extended through the wrecked truss over the adjacent canal. Bents supporting the beams rest on the truss framing.

Nation-wide association of engineers proposed by C. A. Powel

President of the American Institute of Electrical Engineers declares there is need now for an all-inclusive organization

A nation-wide association of engineers, embracing all branches of that profession, was advocated on May 16 by C. A. Powel, president of the American Institute of Electrical Engineers, speaking before the St. Louis Section meeting of the A.I.E.E. Mr. Powel declared that "in a world where scientific knowledge and engineering achievement are shaping our habits of thought and life, there is urgent need for an all-inclusive organization that can speak for engineers in the councils of government and the ranks of industry".

Mr. Powel, who is manager of headquarters engineering of the Westinghouse Electric Corp., Pittsburgh, Pa., said that such an organization must have "constant and intimate contact with the rank and file of engineers and must bring its weight to bear in community and civic affairs."

Collective action necessary

Two plans of joint action have already been tried, Mr. Powel said. The first, put into effect by the American Society of Civil Engineers, authorizes local sections of the society to set up collective bargaining units. The second plan favors the inclusion of engineers in general "white-collar unions". "Both of these plans offer serious difficulties," Mr. Powel asserted. "The first would probably mean the elimination of supervisory workers from the bargaining units and in addition presents a number of legal obstacles. The second plan, while attractive in some respects, has several disadvantages.

"In any concern, no matter what size, the ratio of engineers to draftsmen, clerks, accountants and others is almost of necessity small. In addition, the engineer would be subjected to decisions and rules which are clearly intended for a great majority of men doing an entirely different class of work."

Mr. Powel stated that the A.I.E.E. had formed a joint committee with the American Society of Mechanical Engineers to investigate the subject of collective bargaining units for local society sections, and added that "their preliminary study has brought out the tremendous difficulties of such a plan."

Mr. Powel declared that by the very nature of his work the engineer "has something different to sell than the machinist, the clerk or the laborer. The engineer's training has developed his creative instinct," he said. "His work is not adapted to control by any ordinary time-study procedure nor can his hours of work be put on a rigid schedule. He is much more likely to become an individualist than a man working with a group in the shop. Nevertheless, he has the same desire to seek protection in collective action.

"It is doubtful, however, if a bargaining agency in the ordinary sense of the term is necessary or desirable for engineers. The protection he rightly seeks could probably be provided more effectively by an over-riding association embracing all engineers devoted specifically to the welfare of the profession as a whole and the individual members comprising it."

BRIEF NEWS

Fifteen new engineering aides have been hired to lead field survey parties in surveying the Trinity River so that plans can be made to canalize the stream, according to the Denison District Army Engineers at Denison, Tex. Congress recently authorized the survey and the project was transferred to the Denison district.

Construction contracts have been awarded for the first units of a large tire plant to be built at Topeka, Kan., by the Goodyear Tire & Rubber Co., of Akron, Ohio, according to P. W. Litchfield, board chairman.

The new factory, which is a Defense Plant Corporation unit, will produce large tires for the mechanized equipment of our fighting forces. Construction will start soon and the plant is scheduled to begin operating by next January. It will employ 400 when full production schedules are attained. A subsidiary company, the Goodyear Tire & Rubber Co. of Kansas, will operate the plant.

The factory is to be constructed in saw-tooth style of brick and steel, and will provide 200,000 sq. ft. of floor space. The main plant will be 900 ft. long and 150 ft. wide. There will be a powerhouse, machine shop and other auxiliary buildings. Power will be supplied by the Kansas Power & Light Co., and the water supply is to come from deep wells to be sunk near the site. W. D. La Due of the Goodyear engineering staff, Akron, will be resident engineer supervising construction.

Postwar projects to cost $6,208,000 have been approved by the city commission of Grand Rapids, Mich. The major item is a limited-access highway in the southwest part of the city to cost about $3,300,000. According to Floyd Jennings, city planning director, the thoroughfare would be co-ordinated with the federal inter-regional highway program and the cost would be met from federal and state funds. Twenty-four major projects include street widenings, sewers and water mains. A secondary sewage treatment plant to cost $1,000,000 was tentatively approved.

Isolation of north central British Columbia was ended by the recent opening of the $12,000,000 Skeena Highway, an Army road to transport freight and personnel to military bases in Prince Rupert. However, the district uses it freely although it is not open to unrestricted commercial use.

Nine contracting companies worked on the 111-mile project, comprising 78 miles from Terrace to link with an 11-mile road out of Prince Rupert to Prudhomme Lake, and 33 miles from Cedarvale to join a 25-mile stretch of old highway east of Terrace. It is reported that some sections of the road cost $275,000 a mile.

Port Arthur, Tex., has been assured by district WPB officials that it will be granted a priority for a $110,000 pumping station to drain the city's west side.

Of its $900,000 budget for 1945, the Nevada State Department of Highways expects to spend $717,000 for general and $35,000 for specific maintenance on 3,086 miles of highway, it was said recently by R. A. Allen, state highway engineer. With the explanation that all Nevada federal highway construction funds were expended in the early stages of the war, Mr. Allen said there would be no new construction work in the state until the postwar period when funds from the Federal Aid Highway Act of 1944 become available. The largest expenditure will be made in Elko County where $120,000 will be spent to maintain 425 miles of highway.

George T. Seabury: 1880-1945

George T. Seabury, secretary of the American Society of Civil Engineers, died after plans had been completed to publish an appraisal of his service to the engineering profession in this issue, the first to be published after his retirement was to have become effective. The cut for cover had been made and type for it was being set when word of his death came.

The following is what was written for use in that issue, changes having been made only in the opening and concluding paragraphs to bring them up to date. To us it appears to be a more appropriate tribute than any obituary that could now be written—THE EDITORS.

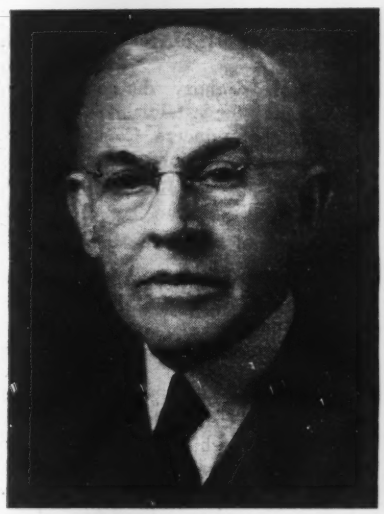
Few men have done more for the American Society of Civil Engineers than the man who on June 1 was to have given up the secretary's post of that organization, yet less is known about the contributions made by George Seabury than about those of most men who have served the society as officers at one time or another.

This paradoxical situation is explained in part by the fact that George Seabury came from New England and was educated in one of its conservative schools where unobtrusiveness was considered a virtue that accompanied competence. Further explanation rests in the fact that during the past 20 years Mr. Seabury's greatest satisfaction came from seeing the society's Board of Direction and its committees move forward, seemingly on their own initiative, toward accomplishment of his objectives. Skill in getting the board to do what he thought best, or in keeping it from making a mistake, without his appearing to take a leading part, was one of his distinguishing characteristics.

Broad practical training

George Seabury came to the A. S. C. E. in 1925 with a broad background of practical experience. Born in Newport, R. I., in 1880 and graduated from M. I. T. in 1902 as a civil engineer, he spent his first four years out of school as a contractor's engineer around New York. The next nine years were spent in that training ground that turned out so many engineers who hold high positions today, the Catskill work of the New York Board of Water Supply.

In 1915 Mr. Seabury went to Providence, R. I. to become a division engineer with the water supply board at that city. Three years later he left that position to accept a commission as a major in the Construction Division of the Army, participating in the construction of Camps Devens, Upton, Meade, Mills, Merritt, Dix and Lee. Leaving the army in 1918 he organized the contracting firm of George T. Seabury, Inc., and was engaged in construction work until 1923 when he was named manager of the Providence Safety Council. He left that position to become secretary of the A. S. C. E. on Jan. 1, 1925.



George T. Seabury

For an adequate appreciation of Mr. Seabury's service to the A. S. C. E. it is necessary to recall conditions within the society at the time he took office in 1925. Charles Warren Hunt had retired four years earlier after more than a quarter of a century as secretary. In those intervening years four men had served as secretary—H. S. Crocker for about a year as acting secretary while a successor to Mr. Hunt was being found, then E. M. Chandler for another year, then John H. Dunlap, who served as secretary from July, 1922, until his death following a railroad accident in July 1924, and finally Lincoln Bush as a pinch-hitter while another secretary was being sought.

Thus, Mr. Seabury took over an organization that had been without an experienced administrative head for four years. But this was not his only problem. In the closing years of Mr. Hunt's regime there had been growing resentment against centralized control of the society from New York and increasing demand for a change in the constitution that would make it possible for various parts of the country to choose their own representatives on the board.

The new A. S. C. E. constitution that resulted from this controversy was adopted late in 1921. It set up districts and zones for the election of officers, provided for much more activity on the part of local sections and for the organization of technical divisions. The monotonous fortnightly meetings of the society at headquarters were eliminated, and meetings each spring and fall at points other than New York were authorized at which there would be sessions of the technical divisions.

Expansion of society activities under this constitution had begun when Mr. Seabury took over, but there were many problems to be faced as new sections were created and technical divisions organized. Fortunately, Mr. Seabury had the help of Carl Beam and Sidney Wilmot, who had joined the staff in 1921 and 1923 respectively, also of Miss E. H. Frick, who then had been office manager for 28 years.

A society journal

Chief responsibility for the establishment of *Civil Engineering* as a journal through which members could be kept better informed as to society affairs rests with Mr. Seabury. Impressed with the need for something less formal than *Proceedings*, he got the board to authorize publication of Part II of *Proceedings*, a four-page leaflet of current society news. That was in 1926. Four years later, *Civil Engineering* was launched as a full-scale society journal.

Mr. Seabury drafted the original plan and policy for that journal and always exercised close control over its content. With part of that policy some members have sharply disagreed, especially his effort to prevent uninformed discussion of controversial issues in its pages and his refusal to permit partisan discussion of matters that were under consideration by the board. No one, however, has ever

questioned the sincerity of his purpose in his attempting to keep the journal's standards on a high plane by such means.

Nowhere is Mr. Seabury's mark so deeply impressed on A. S. C. E. affairs as on its finances. When he became secretary the society had only recently moved from its building on 57th St. to the Engineering Societies Building on 39th St. and had leased the 57th St. property for a modest rent. The society then had liquid assets of about $50,000 and a mortage of $200,000 on its former home. Mr. Seabury immediately took the leading part in negotiating a long new lease for that property which more than doubled the rent. He also insisted that part of this income be put in a fund which could be used to pay off the mortgage and build up a reserve for modernization of the building when the lease expired. Today the society has liquid assets of well over a million dollars if capitalization of that lease is included.

Interest in young members

One of the most controversial issues of the days before Mr. Seabury took office was the extent to which the society should go into questions of pay and working conditions for its members. The conservatives were strongly opposed to such activities. They were not averse to having the society take a stand on the matter of fees for consultants, but when it came to salaries of the employees of those consultants, that was held by them to be a matter for the recently formed American Association of Engineers.

George Seabury did not hold to that view. Quietly he began to build up recognition on the part of the board of the society's responsibility to its younger members, most of whom were employees.

His first opportunity for concrete action came in 1927 when proposed increases in salaries for engineers employed by New York City were before the Board of Estimate for approval. Realizing that support from the A. S. C. E. would be a powerful help in getting approval for the badly needed increases, Mr. Seabury got the board to authorize him to make a formal statement urging on the city the need for paying its engineers more than it paid the mechanics whom they directed. In this appeal he was joined by other engineers, and ultimately the increases were approved.

That was the starting point for expanding activity in the interest of employed engineers that culminated in adoption by the society of salary scales for the principal grades of engineering employment. More recently he took an active part in finding solutions for problems that the spread of the trade-union movement has brought to civil engineers. Though cautious by nature, Mr. Seabury did not hesitate in emergencies to commit the society to large expenditures for legal advisors for engineers in trouble with unions.

Engineers in the depression

Less well known is Mr. Seabury's very extensive activity in finding work for engineers in the depression of the early Thirties, much of which was done by direct personal contact with high administrative and legislative officials. Outstanding is what he did in collaboration with Capt. R. S. Patton, then director of the Coast & Geodetic Survey, in obtaining authorization of extension of the work of the survey to provide jobs for 12,000 engineers. He also played a leading part in getting an engineer, H. M. Waite, named to direct the Public Works Administration and in selecting most of the state PWA engineers.

It was Mr. Seabury who gave the go-ahead signal for establishment of the Professional Engineers Committee on Unemployment when destitute engineers were walking the streets of New York.

Remained in the background

To many members, George Seabury's administration of A. S. C. E. affairs has appeared colorless, coming as it did so soon after the autocratic administration of Charles Warren Hunt. Color, nevertheless, was there. That it has not been characterized by highlights is due to the way in which he undertook to obtain his objectives.

Last January, when Mr. Seabury asked the board to relieve him of his arduous administrative duties, board members expressed the opinion that he should be retained in an advisory capacity. To that end, when the board accepted his resignation in April and named William N. Carey to succeed him (*ENR* May 24, vol. p. 733) it appointed Mr. Seabury to the newly created position of assistant to the president. This assignment was expected to give him complete freedom to use his time as he desired and yet make him available to represent the president on inter-society boards or to act for him in matters where his knowledge of the society would have been of value.

The death of George T. Seabury on May 25 removed from the scene a man who, had he been given an opportunity to view the professional scene objectively, would undoubtedly have made further and significant contributions to the progress of the American Society of Civil Engineers.

Seattle's postwar plans call for $37,000,000

The City Planning Commission of Seattle, Wash., has filed with Mayor William F. Devin a report on projects listed by city departments for a proposed $37,000,000 postwar public works program, to extend over a period of five years.

The report is now under study by the city's postwar public works advisory committee, composed of the mayor, city councilmen and heads of city departments. From this group it will go to the city council for authorization and financing. It is expected that various projects will be authorized by ordinance from time to time as funds become available and employment needs call for relief.

The planning commission included among its major recommendations the following:

(1) Grouping together, to provide "attractive community centers," of the 15 new branch buildings proposed by the police, fire, health and library departments, with harmonizing architecture.

(2) Provision of facilities for off-street parking in connection with any new projects to be used by the general public.

(3) Construction of a new police-health department headquarters building, estimated to cost $2,500,000; and enlargement of the central library building, at a cost of $1,000,000.

Mayor Devin revealed that all the city's accumulated surpluses and reserve funds, estimated at $2,500,000, will be required during 1946 to restore city-owned properties and city services to normal, after the long period during which building maintenance has been deferred and service function have been curtailed.

In addition, the mayor said, $3,000,000 over and above such funds as may be received from federal or state sources and possible bond issues will be required annually for the five years for the city's postwar projects.

Meanwhile, the city water department filed with the city council a request for an appropriation of $12,000 to prepare plans for its postwar projects, including additional water storage facilities of 2,500,000 gallons and the first unit of a new 50,000,000-gal. reservoir.

Three postwar projects aggregating $3,550,000 in estimated cost have been approved by the city council for proposal to state and federal authorities for inclusion in the federal-aid highway system. They call for the construction of a bridge over the Duwamish River at First Ave. S., the extension of Boren Ave. and the widening of Roosevelt Way.

ROM AN EDITOR'S NOTEBOOK

New construction at the Soo was undertaken during the winter shutdown of lake traffic, and now under way are a number of improvements to facilitate navigation through this famous waterway

Sault Ste. Marie, Mich.—Taking advtage of the annual wintertime shutwn of the Soo Locks, the U. S. Army gineers recently completed a milliondlar job of constructing 878 lin. ft. new concrete facing along the south ll of the ninety-five year old upstream proach canal to the MacArthur Lock. detailed description of the cofferdam nstruction, vertical channeling of the sandstone canal wall, and methods wintertime protection of new concrete ployed on this project will appear in forthcoming issue of *Engineering ws-Record*.

Current project to improve navigation the Soo is the reconstruction of 1,040 ft. of the Brady Pier which forms rt of the south wall of the downstream proach canal to MacArthur Lock. so included in this project are a moorr basin 518 ft. long by 179 ft. wide, ng built just inside of the downstream d of the new pier, and a new boatse 56 ft. by 61 ft. containing three ft. wide slips. When completed, the ject will permit U. S. Government rrick boats, dredges, tugboats and er floating plant equipment to tie in the mooring basin, thus leaving e Brady Pier clear for mooring comrcial lake traffic. Heretofore governnt plant equipment has moored to e Brady Pier. The new boat house ll afford an opportunity to repair all government craft in dry dock at e Soo. Merritt, Chapman and Scott rp. hold a contract for this work nounting to $674,280.

Southwest Pier extension

Last April the U. S. Army Engineers arded a contract to the Great Lakes edge and Dock Co., Chicago, for the nstruction of a 1,200-lin. ft. extension the Southwest Pier which lies along e south bank of the upstream apoach canal to MacArthur Lock. This tension will be made up of a 40-ft. de by 8-ft. thick concrete cap supted on twelve 32-ft. high rock-filled ibs of the breakwater type. Each crib ll be 100 ft. long, placed end to end. his new pier will extend part way ross the present entrance to the Michan Northern Power Canal which flows rough Sault Ste. Marie.

Added protection will be afforded wn-bound barge traffic approaching e MacArthur Lock, and a greater ngth of mooring will be furnished by the new pier extension. In the past cargo boats entering the approach canal ordinarily swung wide of the strong sidewise current created by the relatively large discharge into the power canal, resulting in insufficient mooring space above the lock. The contract for this project amounts to $569,400. In addition, the government will furnish $154,900 worth of materials required in the pier extension.

Old landmark to come down

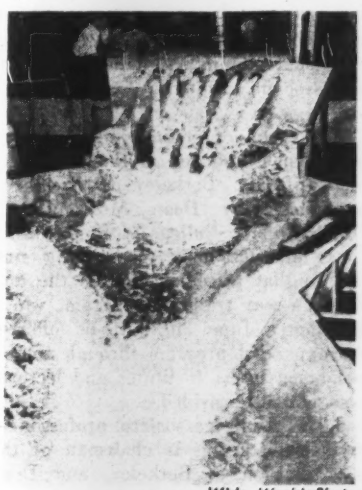
One of the old landmarks at the Soo will be torn down sometime this summer. It is the 309-ft. swing bridge anchored on Bridge Island and equipped with a series of steel wickets which could be lowered to form a dam for the upstream canal approaches to the Poe and the MacArthur locks. For the past 35 years this movable dam has given emergency protection to the locks below it in the event of an accident to one of the upper gates of either lock.

The movable dam is no longer needed since provisions have been made recently for installing a steel stoplog emergency bulkhead just above the upper gates of the Poe lock, while a similar installation was made at the MacArthur lock when it was built. Removal of the movable dam will not interfere with lake navigation through the locks. The swing span will be rotated to an open position, with the trusses paralleling the center line of Bridge Island. Trusses then will be dismantled and removed by barges which can be floated into a slip provided at the downstream end of the island.

Construction of the movable dam at the Soo, back in 1910, will be remembered by many engineers as an innovation in lock protection at that time. According to an iron plaque attached to the trusses, plans were prepared by L. C. Sabin and Isaac DeYoung, then assistant engineer and junior engineer, respectively. Col. Chas. E. L. B. Davis, Corps of Engineers, U. S. Army, was in charge of the work.

Park improvement

Another needed improvement scheduled for some time in the near future is the repair and rehabilitation of a small park located between Portage Ave. in Sault Ste. Marie and the MacArthur Lock. For many years this area served as a picnicking rendezvous for tourists visiting the Soo. Construction operations in connection with the building of the MacArthur lock in 1943, together with normal deterioration caused by Army and Coast Guard occupancy of the park during the past four years has damaged it to such an extent that it will require a complete job of landscaping, seeding, driveway construction and other improvements to restore it to its former status.—*JRC*.



Wide World Photo

For study of dam flow

Model of the channel below the proposed Bridge Canyon Dam in Utah (ENR May 24, vol. p. 742) built to a scale of 1 to 60 by engineers of the Bureau of Reclamation in the Denver laboratory to study flow conditions at time of flood. Power turbines located in chambers in the body of the dam would discharge at the toe, below the outlet valve jets, and spillway discharges would come in from the diversion tunnels at the sides.

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Suggest state operate Golden Gate bridge

Belief that the State of California eventually must take over operation of the Golden Gate Bridge between San Francisco and Marin counties because a small bridge district cannot operate and maintain a highway bridge of such size was voiced in mid-May by California legislators.

Turned down at a recent legislative session was a proposal for state construction of a new six-lane divided freeway approach to the bridge on Marin County side, pushed by Redwood Empire legislators. The proposed approach would have been by way of Sausalito and meant abandonment of the present Waldo approach.

News of the Engineering Schools

"Bachelor of Building Construction" is a new degree which will be awarded at the Alabama Polytechnic Institute, Auburn, Ala., for students who take a 4-year course which aims to give sound collegiate training to those who intend to become design and service engineers, building contractors, material manufacturers, dealers, service representatives, building inspectors for municipalities or insurance companies, etc.

The curriculum includes such subjects as: English, algebra, geology, trigonometry, engineering drawing, analytical geometry, machine shop, woodworking, economics, calculus, welding, mechanics of materials, elementary surveying, engineering accounting, real estate, physics, office practice, reinforced concrete, industrial relations, business law, construction methods, estimating problems, foundations, and other correlated subjects.

The alumni day celebration of the 75th anniversary of Stevens Institute of Technology on May 26 featured the sending of greetings from Hoboken, N. J., to its namesake city, liberated Hoboken in the Province of Antwerp, Belgium.

On May 29 about 50 members of the Stevens Alumni Association attended the launching of the "Stevens Victory" at the Bethlehem-Fairfield shipyard, Baltimore, Md. The ship, named after the institute, was the 63rd vessel of its type to be built there since last fall. Constructed in 45 days, it will be operated by the Grace Steamship Lines. A library for the crew has been donated by the alumni association.

At the recent annual civil engineering convocation at the University of Illinois the Ira Osborn Baker awards to the two outstanding students in civil engineering were conferred upon Ralph E. Robison and Harold E. Eckhoff.

Speaking at joint dinner meeting of several engineering societies at Rochester, N. Y., on May 25, Webster N. Jones, director of the College of Engineering, Carnegie Institute of Technology, said, "Never before has there been such a widespread shortage of technical and scientific manpower, and the demand for engineers will extend far into the postwar period. The close of the war will usher in an era of the greatest scientific and engineering advance. Engineering and scientific research must and will be carried on and increased."

As soon as steel priorities can be obtained, the Illinois Institute of Technology, Chicago, will begin work on a $10,000,000 campus and building program, Henry T. Heald, president, has announced. The program is designed to provide the students with residences and facilities for study and recreation. Architectural plans have been prepared and sufficient funds are on hand to start the buildings. The institute now owns a large portion of the site.

A start has been made on the program with the erection of the $200,000 metals research building and of about one-fourth of the $700,000 engineering research building, Dr. Heald pointed out. Besides these two buildings, plans call for 16 other structures to be erected west of State St. The plans call for building east of State St., a $1,200,000 system of inter-connecting dormitories, thus affording the first domicile for engineers at the present South Side campus.

All of the buildings have been designed in the best modern functional style by Ludwig Mies Van der Rohe, professor and director of the architectural curriculum. Holabird & Root are associate architects.

A division of engineering extension has been established at the University of California, Berkeley, it has been announced by Dean Morrough P. O'Brien of the College of Engineering. Class instruction in engineering similar to that provided through the university's war training program, which terminates June 30, will be offered. An expanded program through correspondence study, institutes and lectures also will be provided.

J. W. Kelly, associate professor of civil engineering, is chairman of the new division at Berkeley, and Dean L. M. K. Boelter of the College of Engineering on the Los Angeles campus is in charge for the southern area.

As part of the expansion of the school of engineering at the University of Washington, Seattle, mentioned in the May 24 issue of *Engineering News-Record*, vol. p. 739, work will begin this summer on a building to house a new structural testing machine, now being constructed by the Baldwin Southwark Division of the Baldwin Locomotive Works. It incorporates many new features, and will be capable of accommodating structural specimens 10 ft. wide. As a transverse tester it will be able to test trusses and other structural assemblies more than 80 ft. in length, subjecting them to a test transverse load of 2,500,000 lb. The combination of length and loading is much beyond the capacity of any equipment yet built. It will have a capacity of 2,500,000 lb. compression and 2,000,000 lb. in tension. The machine, scheduled for delivery in October, is four stories high, with a depth of 15 ft. in the basement below the testing floor.

A full-size railway boxcar can be rolled into the testing space on a standard track which crosses the axis of the machine. A spur track is to be extended from a railroad bordering the campus to connect with the track at the machine.

The building to house the apparatus will be the first wing of an $800,000 civil engineering building, which will be the first unit of a $4,500,000 engineering group to be constructed after the war. Other buildings will be for electrical, mechanical, chemical and general engineering.

Walter H. Wheeler, Minneapolis, has been named chairman of the committee on education of the National Society of Professional Engineers. Wheeler succeeds Dean S. C. Lind of the University of Minnesota. The committee will make a study of the systems of education, courses of study and requirements for degrees at various engineering colleges both here and abroad.

The Engineering Foundation of North Carolina State College has collected about $56,000 of a financial goal of $1,000,000 with many of America's leading engineers giving assistance in raising the funds, according to the announcement by Roy L. Williams, property officer of the college.

E. W. Schilling, dean of the Montana State College department of engineering, has been elected president of the Montana Society of Engineers.

The Indian Railway Board is preparing plans for the postwar development of railways in India. They call for the expenditure over the first six postwar years, of one billion dollars on rehabilitation, and replacement of tracks and other equipment. A program of construction of new lines and replacement of lines dismantled during the war, involves the construction of 5,000 miles.

Plan over $700,000,000 construction for Texas

ublic construction totaling $560,000,- and private construction aggregat- $148,000,000 are planned in Texas he postwar period, according to a ey made by a committee of the as Section, American Society of l Engineers.

rigg Twitchell of Austin announced the Texas committee is working ely with the survey by the national nization and the *Engineering News-ord*, which shows plans for a na- wide expenditure of $7,858,500,000. his, Twitchell reported, Texas ranks th among states, New York being

he announcement added: "It is ex- ed that these expenditures will be de for new industries, waterworks, erage, highways, public buildings, many other works that will make a better society. Although Texas' gram appears to be a large one, the e of the projects for which plans e actually been completed is small. V-E Day is now past, cities, small munities, and other municipal anizations, as well as private enter- es, should be urged to place postwar ns in final form so that returning iers can be rapidly absorbed in ian activities."

The highway program

The Texas Highway Department re- tly has announced major portions its postwar plan, including a $60,- ,000 program of rural paving and cific routing for principal highways all metropolitan counties.

The farm road program would be fi- ced equally with state and federal nds, for fulfillment in the first three rs after the war. It calls for build- 5,830 miles of surfaced highways rural areas and maintenance of an ditional 1,375 miles already built.

The Highway Commission said that new program would improve 29 per t of all the country roads in Texas ich have daily traffic of 100 or more hicles. Twenty-six thousand of the te's 170,000 road miles carry 100 more vehicles. The Commission said unties will benefit additionally be- se they can concentrate their own nds on improving other roads after state takes over the most heavily- veled routes.

Meanwhile, the Commission pro- ed to develop in Fort Worth the tes of U. S. 80 and U. S. 81 on ap- ximately 160-foot rights of way. ad plans already have been an- unced for other cities including El so, Houston and San Antonio.

f finances can be stabilized over a long period, the Commission recently announced, even more definite commitments can be made. The legislature has been asked to write into the constitution the present allocation of road user taxes to the highway department from gasoline and other motor vehicle levies. The House has passed, and sent to the Senate, a bill to raise the state retail gasoline tax from four to five cents a gallon, the extra cent to be set aside for rural highways.

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Veterans Administration will build 18 hospitals

Estimating that hospital facilities for veterans of this war must be enlarged to three times the World War I maximum, Brig. Gen. Frank T. Hines, administrator of veterans' affairs, has called attention to what the recent $2,607,187,500 Veterans Administration appropriation will mean to the building industries.

Out of the $84,500,000 granted for veterans' hospital construction during the coming year, funds have been allotted for construction of 18 new hospitals with an 8,725 total bed capacity; additions to 12 existing hospitals have been approved; service alterations and expansions are scheduled for 39 state institutions.

"With 95 veterans' homes and hospitals located in 45 of the 48 states every business—as well as every community—should feel the effects of building activity in terms of both money and jobs."

Pointing to the variety of businesses which will be effected by the veterans' construction program, General Hines reported that 54 percent of the construction cost of hospital building goes into materials.

JOBS OF THE WEEK

TRANSIT SHEDS and STOREHOUSES, Rough and Ready Island, Calif.

Bureau of Yards & Docks, Navy Department, Washington, D. C., awarded a contract to Kiewit, Johnson & Everest, San Francisco, to construct transit sheds, warehouses, steel storage area, roads and railroads at Naval Supply Depot, at $4,700,000.

CARBON BLACK PLANT, Seagraves, Tex.

Fluor Co., Kansas City, Mo., has been awarded a contract to build a carbon black plant by the Columbian Carbon Co., New York, N. Y., at an estimated cost of $1,500,000. Defense Plant Corp. will finance.

HOUSING,, Washington, D. C.

Public Housing Authority, Washington, D. C., awarded a contract for construction of Stanton Road Dwellings, for National Capitol Housing Authority, Washington, D. C., to Haris Construction Corp., New York, N. Y., at $1,470,500. George Howe and Louis I. Kahn, Philadelphia, Pa., are the architects. John M. Irvine Associates, Philadelphia, are consulting engineers. Nathan Cronheim, Philadelphia, Pa., is the structural engineer.

HOUSING, Winnipeg, Man.

Bird Construction Co., Ltd., Winnipeg, will construct 333 houses at Fort Gary on Red River by its own forces. The estimated cost is $3,000,000.

PIPE LINE, Missouri and Illinois

Texas Empire Pipe Line Co., Tulsa, Okla., awarded contracts for the construction of a 12-in. steel pipe line from Sheldon, Mo., to Heyworth, Ill. Laying 35.8 mi. pipe went to H. C. Prince Co., Bartlesville, Okla., at an estimated cost of $960,000; 18 miles to Sheehan Pipe Line Construction Co., Tulsa, Okla., at $618,000; 72.6 mi. to Williams Brothers Corp., Tulsa, Okla., at $2,100,000 and 36 miles to Sooner Construction Co., Sheldon, Mo., at $1,140,000.

RUNWAYS, Taxiways, etc., Valpariso, Fla.

Smith Engineering Co. and Noonan Construction Co., Pensacola, Fla., were the lowest bidders for constructing additional runways, taxiways, aprons, access roads, and drainage at Eglin Field, when the U. S. Engineers, Mobile, Ala. opened bids. The estimated cost is $1,000,000.

MINE DEVELOPMENT, Lansford, Pa.

Lehigh Navigation Coal Co., Inc., Philadelphia, Pa., awarded a contract for a coal stripping project in Schuylkill County, to Carey, Baxter & Kennedy, Inc., New York, N. Y. Work will continue over a period of ten years and involves 41,000,000 cu. yd. of rock, dirt and coal excavating at a cost of $3,000,000 each year. Eavenson, Alford & Auchmuty, Pittsburgh, Pa., are the engineers.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 15.

MEN AND JOBS

Col. J. Norman Pease, Charlotte, N. C., construction engineer before entering the Army three years ago, has been awarded the Bronze Star at a South Pacific base. He was cited for his work as commanding officer and supply chief on Guadalcanal from June 22 to December 13, 1944, the citation stating that "Colonel Pease contributed immeasurably to efficient operation through his initiative, aggressiveness and superior judgment in the supervision and control of supply and other administrative activities." Head of the engineering firm of J. N. Pease and Co. of Charlotte, Colonel Pease after entering the Army served a while in Atlanta, Ga., and Washington before going to Camp Craven, La., where he organized an Engineers regiment with which he went overseas about a year ago.

M. J. Hoffmann, commissioner of highways of Minnesota, has been reappointed for a 4-year term. Except for 19 months service with Army Engineers in World War I, Mr. Hoffmann has been connected with the Minnesota State Department of Highways since January, 1914, serving successively as bridge draftsman and designer, division engineer, assistant maintenance engineer, and chief bridge engineer. He has been a member of the executive committee of the American Association of State Highway Officials since 1943 and was recently elected first vice-president. He is also a director of the American Road Builders Association.

Walter Hopkins, city engineer of Brawley, Calif., for nine years, recently was engaged for the newly created post of city engineer at Hanford, Calif.

Pedro Martinez Tornel, civil engineer, has been appointed by President Camacho of Mexico as Secretary of Communications and Public Works. He succeeds Gen. Maximino Avila Camacho, the President's brother, who died recently. Mr. Tornel has had a long experience in road and railroad building.

Dwight H. Bray, who has had 25 years' service with the Kentucky State Department of Highways, has been shifted from maintenance director to road design director to supervise the proposed $75,000,000 postwar road building program. Mr. Bray will be succeeded by **Harry D. Metcalf,** for the last six years Ohio's chief engineer of road maintenance and repair.

J. Swain, Asotin County, Wash., engineer is also part-time engineer for neighboring Garfield County. He takes the place of C. A. Winnett, Columbus County engineer at Dayton, who had held the part-time Garfield County post since the board of commissioners decided wartime conditions made the services of a full-time engineer unnecessary.

The Story County, Ia., board of supervisors has appointed **J. S. Dobbs,** civil engineering professor at Iowa State College, as county civil engineer for this year.

Word of the safety of **Clifford T. Ayres,** civil engineer interned 37 months at Santo Tomas in the Philippines, has reached his parents in Des Moines, Ia. Mr. Ayres was chief engineer for 29 government projects before his capture and internment, working for a San Francisco construction company. He has been in Manila since April, 1941. Before that he worked on the construction of the Mineral Wells Army camp in Texas. He received his engineering training at Armour and Lewis institutes in Chicago, Ill.

Maj. Edward B. Pinney, project engineer and manager of the planning department of the Firestone engineering division at Akron, Ohio, prior to entering the Army in 1942, has returned to civilian life after serving as field service maintenance officer in North Africa and the Pacific, and has been named head of a new Firestone armament plant being set up at Burlington, N. C.

William Franklin Evans, Jr., of Greenville, N. C., former sanitary engineer with the Florida Board of Health at Jacksonville, Fla., has been named superintendent of the municipal water and sewerage department at Wilmington, N. C. Mr. Evans was graduated from the University of North Carolina School of Engineering in 1929, and after leaving college was employed by the Nashville Bridge Co. and with Paul Van Camp, Southern Pines, N. C., consulting engineer. From Nov. 1935 to May 1942 he served as engineer and superintendent of the water department of the Greenville Utilities Co. He later designed water and sewer systems for Army air bases at Maxton, N. C., Wilmington, and Congaree, S. C., for Metcalf and Eddy, consulting engineers Boston, Mass., and as sanitary engineer for the U. S. Engineers, Mobile, Ala., prior to taking the health board post in Florida.

M. V. Sauer is this year's recipient of the Keefer medal of the Engineering Institute of Canada. A graduate of Toronto University, he is a hydraulic engineer and now with the Quebec Hydro-Electric Commission.

Lawrence M. Cook, former construction engineer for the Magnolia Petroleum Co. in the Dallas, Tex., and Louisiana districts, has been made colonel and staff operations officer at the headquarters of the AAF Engineer Company in Italy. Col. Cook has been superintending building of airfields for the Allied Air Forces in the Mediterranean.

Milford E. Rogers, director of service and superintentent of the water supply division at Wichita, Kan., has resigned to go with Builders-Providence, Providence, R. I. His first employment in Wichita was as an engineer with the park department, then in 1939 he became co-ordinating engineer during the construction of the city's $2,500,000 water supply and pipeline system.

A. Euclide Paré has been appointed chief engineer of the hydraulic service of the Department of Lands and Forests, Quebec. He was formerly assistant chief engineer and had been acting chief engineer since April, 1944. A graduate of the Ecole Polytechnique he was assistant engineer of the Department of Public Works of Canada from 1933 to 1935, and from 1935 to date was with Hydraulic Service, first as engineer and since 1941 as assistant chief engineer. **Charles Edward Delslauriers** has been promoted to assistant chief engineer of the Hydraulic Service to replace Mr. Paré. He is a graduate in civil engineering from the Ecole Polytechnique and has been with the Hydraulic Service since his graduation in 1940.

Frank L. Dieter, county planning engineer at Arlington, Va., has been named city planning engineer at Durham, N. C. He has been at Arlington for the last six years. He also is a member of the Virginia State Planning Board. Prior to going to Arlington he was associated with H. C. Webster consulting engineer, at Milwaukee, Wis., and in 1936 was associate engineer with the planning staff at Greendale, Wis., in which capacity he worked with the Resettlement Administration. He also has served as commissioner of public works at Wauwatosa, Wis.

WASHINGTON HIGHLIGHTS

President Truman's request to Congress to reduce funds and contract authorizations available to the U. S. Maritime Commission as part of a general plan to trim federal budgets by four billion dollars will not change the commission's ship construction program. Regarding this fact, Vice Admiral Land, chairman, reports, "President Truman's request allows completion of the current construction program under which approximately 12,000,000 deadweight tons of new ships will be built this year." No ship construction for this year was involved in the item expected to be reduced.

Bills have been introduced in both House and the Senate to require the federal government to pay highway use and other state taxes in the operation of any systems of commercial transportation taken over and operated by a federal agency. Introduction of the bills (H.R. 3203 and S. 992) has resulted because in governmental operation of certain truck lines the question arose whether or not the federal government as the operator would need to pay certain state taxes.

The Bureau of Reclamation now has under way studies of 15 river basins to determine the need for irrigation, flood-control and power development in various sections in the western United States. These will be comprehensive reports similar to the Missouri River Basin Plan, published in Senate Document No. 191 of the last Congress. The following are being studied: Brazos, Red River, Nueces, Guadalupe, and Colorado rivers, all in Texas, Rio Grande Basin, Columbia River, Colorado Basin, Arkansas River, Central Valley Basin, Rogue River (Oregon), and the Russian River Basin in California. In addition, a study is being made of the Lahontan-Bonneville Basin (part of the Great Basin in Nevada and Utah), as is Santa Barbara County in California.

When the studies, which began last summer, are completed, reports will be submitted to the affected states and the Secretary of War under the provisions of the Flood Control Act of 1944 for review and comment. These comments will be incorporated in the reports, which will then be sent to Congress for action.

Representative Cravens of Arkansas reports he has begun negotiations with the War Production Board to permit the construction of Fort Gibson Dam in eastern Oklahoma to proceed. To be built on the Neosho River, a tributary of the Grand River, Fort Gibson Dam is one of three projects approved as an integrated flood control project on the Grand River. Only Pensacola Dam has been built, Fort Gibson and Markham's Ferry dams having been shut down because of the war. The Gibson project, which calls for the installation of 45,000-kw. generator capacity, will be built by the Corps of Engineers.

A bill (H.R. 3300) has been introduced in the House to authorize preliminary examination and survey of the waterway from Saint Mary DeGalvez Bay to Sound Bay, Fla. A similar bill (H.R. 3295) has also been introduced to authorize examination and survey with a view to construct a breakwater at Betterton, Md., and still a third bill (H.R. 3296) has been introduced to authorize examination and survey with a view to construct a boat basin in Johnsons Creek, Somerset County, Md.

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Oil distribution school for engineer troops

A petroleum distribution school, to teach engineer troops to lay, install and maintain booster pumping stations for carrying gasoline, oil and other vital fuel to fighting fronts is being constructed at Fort Lewis, Wash., it was announced early in May by Col. Conrad P. Hardy, Seattle District Engineer.

Completion of the first section of the school is scheduled for July 1. Costing $79,756, the project is under contract to Sam Bergesen of Tacoma and is under supervision of Oscar C. Nelson, Ft. Lewis project engineer, and E. G. Osborn, supervising district engineer.

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Syracuse, N. Y., has big public works program

City Engineer Nelson F. Pitts of Syracuse, N. Y., has reported to Mayor Kennedy that a $2,000,000 building, paving and sewer program for 1946 and 1947 could be carried out under continuation of the proposed pay-as-you-go policy of the city. He noted that $1,000,000 of the funds would come from the city; the other $1,000,000 from the state.

Mr. Pitts enumerated proposed paving work costing $575,380; sewers, $298,770; buildings, $108,500 and said that separate water funds would provide for $287,000 in work.

Tunnel contract awarded for San Diego Aqueduct

Construction of San Diego's $17,500,000 federally-financed aqueduct for Colorado River water (*ENR* May 17, vol. p. 689) is expected to begin in the near future, following the recent award of an $878,536 contract for boring of three tunnels to W. E. Callahan Construction Co. and Gunther & Shirley Co. of San Francisco and Los Angeles.

Though War Manpower Commission and War Production Board restrictions prevent immediate use of structural steel and certain types of skilled labor, work may be started on construction necessary for general operations, including roads, buildings and equipment.

Of the tunnels, the Fire Hill bore will be 5,700 ft. long, the Poway bore 3,180 ft. long and the San Vicente bore 2,400 ft. long. They will be concrete-lined, 6 ft. high and horseshoe shaped—flat on the bottom.

Meanwhile, surveys and field drawings for the entire project had been completed, and plans and specifications were being readied for bids on a regulating reservoir and 22-mile section of pipeline near San Jacinto Tunnel.

The aqueduct will provide a 71-mile hookup between the Metropolitan Water District's San Jacinto Tunnel and San Diego's Sun Vicente municipal reservoir.

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Removes weight tax on construction machinery

Ending a fight of several years over the issue of whether earth-moving equipment is subject to taxes while being transported upon state highways, the California legislature recently adopted a measure specifically exempting construction equipment from weight fees, although requiring registration for the purpose of identification.

In 1940 the state's attorney general (now Gov. Earl Warren) ruled that carryall scrapers were subject to taxation, a ruling which subsequently cost contractors hundreds of thousands of dollars annually in motor vehicle taxes. Since the United States' entry into the war, the tax burden has been especially high because of the frequent necessity of moving equipment.

The bill doing away with the tax was sponsored by the four California chapters of the A. G. C., and was guided through the legislature by the two A. G. C. representatives in Sacramento, Floyd O. Booe of the Northern California Chapter, and Frederic A. Chase of the Southern California Chapter.

OBITUARY

Homer Heath Nugent, 51, head of the English department at Rensselaer Polytechnic Institute, Troy, N. Y., died May 28. Professor Nugent joined the R.P.I. faculty in 1916 following his graduation from Harvard University. After serving in the first World War, he received a master's degree from Columbia University in 1923. He taught at New York University in 1928-29. An advocate of emphasis on English in engineering courses, Professor Nugent had served as chairman of the English section of the Society for the Promotion of Engineering Education.

Clarence R. Wehrman, 42, manager of the American Canal Co. of Sugar Land, Tex., died May 18 at Pearland, Tex. Before becoming manager he had served the company for six years as civil engineer. He had also served as a civil engineer for the Sugarland Industries. He was a graduate of Texas A. and M. College.

Albert L. Wilcox, 63, Los Angeles engineer, died at Pasadena, Calif., May 13. Mr. Wilcox was noted for his industrial development work for different corporations in Brazil and other South American countries, where he lived for many years. He was in charge of much of the pioneering in the development of nitrate in Chile.

Chester Posey, 54, engineer for the Pharr-San Juan Water District of Hidalgo County at McAllen, Tex., for 20 years, died there May 15.

James Stewart Green, 41, chief engineer of the Louisville, Ky., division, U. S. Engineers, died May 24. A graduate from Purdue University, he joined the U. S. Engineers in Louisville and later was transferred to St. Paul, Minn. He was reassigned to Louisville after the 1937 flood to work on flood control and from 1943 on served as chief engineer.

John G. Sheldrick, 65, resident engineer of the Minneapolis, St. Paul and Sault Ste. Marie Railroad, died recently in Minneapolis, Minn. He had been a railroad man for 47 years, beginning in 1898 as a chainman in the engineering department of the Chicago, St. Paul, Minneapolis and Omaha line.

Wilmot E. Whittier, 66, retired civil engineer, died in Los Angeles, Calif., May 26. A graduate of Stanford University and Columbia School of Mines and a resident of southern California for 45 years, he was at one time division engineer for the Metropolitan Water District and later was chief engineer for McNeil Construction Co. in the building of the Basic Magnesium, Inc., plant, near Las Vegas, Nev.

Charles R. Zorsch, 65, who was one of the civil engineers engaged in planning and building the New York State Barge Canal and who up to the time of his death was assistant engineer for the State Department of Public Works at the canal terminal at Rochester, N. Y., died May 28. He had been with the department for 43 years.

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"Public Buildings Area" for Seattle, Wash.

The Seattle Planning Commission has recommended to Mayor William F. Devin the creation of a "public buildings area" covering six square blocks between Third and Fifth Aves. and Jefferson and Columbia Sts., to be supplemented later by development and beautification of an adjacent "auxiliary area" and an "approach area."

The "public buildings area" would be an administrative center, not a civic or cultural center, and would be set apart for buildings of the city, county, state and federal governments. The county-city building already is in that area, and the city plans to build a public safety building there after the war.

The report was based on a study of the building needs of the various governmental agencies for the next 25 years. Chairman Walter L. Wyckoff said.

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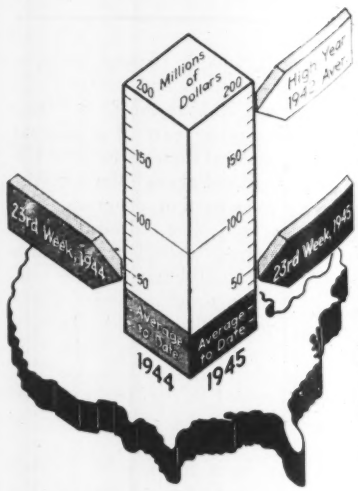
Mexican cement business experiences a boom

Mexico has 11 cement factories running full blast, with an annual output of more than 1,000,000 metric tons. Because of an unprecedented building boom, the supply of cement is insufficient to satisfy the country's needs, and new plants are springing up. Six are rapidly being finished at Mazatlan, Tlalnepantla, Monterrey, Leon, and two in Vera Cruz. In addition, present plants, including Cementos Mexicanos of Monterrey, are increasing their daily ton capacities with additions to plants.

When the new plants are finished and the additions to present ones completed, Mexico is expected to have sufficient units to take care of home cement demands.

CONSTRUCTION ACTIVITY



As Reported This Week to...
Engineering News-Record

CONTRACT VOLUME

Continental U. S. Only (Thousands of Dollars)

	Week of June 7 1945	Cumulative 1945 (23 wk.)	Cumulative 1944 (23 wk.)
Federal	$20,511	$419,500	$525,023
State & Municipal	9,095	104,506	88,349
Total Public	$29,606	$524,006	$613,372
Total Private	13,379	204,520	186,784
U. S. Total	**$42,985**	**$728,526**	**$800,156**

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Type of Work	Dollar Volume (Thousands) This Week	Cumulative 1945 (23 wk.)	Cumulative 1944 (23 wk.)
Waterworks	$303	$17,304	$10,780
Sewerage	832	12,817	10,812
Bridges	266	11,363	5,437
Highways	7,960	75,211	78,749
Earthwork, Waterways	993	15,420	28,841
Buildings, Public	10,428	287,085	306,133
Industrial	7,150	139,475	79,028
Commercial	1,006	35,928	84,696
Unclassified	14,047	133,923	195,616

NOTE: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1945 (23 wk.)	Cumulative 1944 (23 wk.)
NON-FEDERAL	$263,826	$183,833
Corporate Securities	75,462	82,593
State and Municipal	167,464	47,454
RFC Loans	20,900	53,786
FEDERAL	$251,010	$245,266
Total Capital	**$514,836**	**$429,099**

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	May '45	307.43	147.78
Building Cost	May '45	238.46	128.90
Volume	Apr. '45	99	43

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *SCOTT McLEOD, Statistics* *J. A. MAHONEY, Reports*

(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

Mass., Andover—Town, C. T. Gilliard, supt. P. Wks., preparing plans 8,000 ft. 16 in. watermain, Lowell St. $25,000. Watson & Sampson, 14 Beacon St., Boston, engrs.

Minn., Loretto—Village, R. Schneider, clk., City Hall, water supply sys., incl. about ¾ mi. c.i. mains, elevated steel tank, about 50,000 gal. pumps, pumphouses. $25,000. White & MacGregor, 1108 Nicollet Ave., Minneapolis, engr.

Minn., Mudbaden — Mudbaden Sulphur Springs Co., Mudbaden, water supply sys., furnishing, installing pump, piping, wiring, constructing pumphouse. $30,000. J. B. Harris Co., 702 Wesley Temple Bldg., Minneapolis, engr.

Minn., Sleepy Eye—City, c/o Clerk, furnishing, erecting elevated steel tower. $30,000. Pfeifer & Shultz, 702 Wesley Temple Bldg., Minneapolis, engr.

†**N. M., Santa Fe**—U. S. Eng., Albuquerque, addnl. water supply, and cold storage reservoir. Over $25,000.

★†**N. Y., West Point**—U. S. Eng., 120 Wall St., New York, Zone 5, making plans reservoir. $500,000.

Okla., Ponca City—City, watermain extens. $20,000. C. Hicks, Ponca City, engr.

Pa., McKeesport—City, C. L. Bechtol, supt. Water Works, preparing plans WW imprvs., incl. two 12 m.g. electric driven centrifugal pumps, addnl. mains, replacing filter bed valves, mixing chambers and settling basin valves, sluice gate valves, new chemical feeding machines, direct pump to reservoir. $52,000. Chester Engineers, 201 E. Parkway, Pittsburgh, engrs.

Tex., Galveston—City, bids soon waterline for Ft. Point area. $35,000. P. A. Milligan, city engr.

BIDS ASKED

Bids Asked June 12

N. C., Fuquay Springs — Town, R. G. Johnson, mgr., 8 and 4 in. watermains and 6 and 8 in. sewer mains. R. H. Moore, Asheboro, engr.

N. S., Halifax—Secy. Dpt. Munitions & Supply, Ottawa, Ont., exten. water distr. sys. at R. C. N. Magazine at Bedford Basin, for Dpt. National Defense (Sea), Ottawa, Ont. About $50,000.

Bids Asked June 20

★**Pa., Phila.**—City, Dpt. P. Wks., City Hall Annex, two 60 in. steel watermains from East Park Reservoir to 31 St. and Girard Ave., replacing two old 48 in. watermains. $500,000. M. McLoughlin, ch. Phila. Water Bureau.

LOW BIDDERS

Ill., Chicago—City, Dpt. P. Wks., City Hall, May 28, piping, valves, equipment, Roseland Pump. Sta., from Associated Piping Contractors, 1829 Belmont St., **$35,996.**

Mass., Palmer—Town, Water Dpt., Town Hall, May 28, 50 x 50 ft., 720,000 gal. steel reservoir, from Pittsburgh-Des Moines Steel Co., 270 Bway., New York, N. Y., **$22,850.** CD 5/22—ENR 5/24.

†**Tex., Houston**—Federal Works Agency, Electric Bldg., Fort Worth, May 23, constructing, installing house service connections to water lines and sewer lines, in Harris Co., Tex. 41-644, from Irving J. Gluck, Chronicle Bldg., **$40,554.** J. C. Calhoun, Merchant Exchange Bldg., engr. CD 5/16.

CONTRACTS AWARDED

†**Kan., De Soto**—U. S. Eng., 10 E. 17 St., Kansas City 8, Mo., gravel wall wells at Sunflower Ordnance Plant, to Layne-Western Co., 1010 W. 39 St., Kansas City, Mo. **$17,896.**

Mass., Lunenburg—Town, G. Rowley, chn. Water Comn., Town Hall, test wells in connection with water supply sys., to E. F. Hughes, 53 State St., Boston. **$15,000.** Whitman & Howard, 89 Broad St., Boston, engrs.

N. D., Dickinson—City, D. D. Mars, aud., City Hall, WW imprvs., incl. new filters, sedimentation basins, intake sys., waste water drain, chemical storage equip., to Haggart Constr. Co., Fargo, N. D., **$19,885.** Bids 5/16. Lium & Burdick, Y.M.C.A. Bldg., Grand Forks, engrs. CD 3/8/44—ENR 3/16/44.

†**N. D., Fargo**—Veterans Admin., Vermont Ave., between H and I Sts. N.W., Wash. 25, D. C., steel water tank and tower, to Chicago Bridge & Iron Co., 930 F St. N.W., Wash., D. C., **$15,900.**

Location of ENR Correspondents

Symbols and Abbreviations Include:

'	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Name in order of Listing)

Water Supply; Sewers, Waste Disposal; Bridges; Streets & Roads; Earthwork, Waterways; Latin America; Public Buildings; Commercial Buildings; Industrial Buildings; Unclassified

Stages Reported

PROPOSED: (except Streets & Roads); BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Pa., Phila.—City, P. Wks. Dpt. and Water Bureau, Juniper and Filbert Sts., filter plant alterations at Torresdale Filter Plant, to John Meehan & Sons, 916 W. Dakota St., **$71,500.** Awarded 5/31.

Wis., Edgerton—City, Mary E. Jensen, clk., pump house, watermains, to T. S. Willis, 326 Hayes Block, Janesville, **$16,859.** Bids 5/18. Mead, Ward & Hunt, 550, State St., Madison, engrs.

Que., Sillery—Municipality, J. R. Pagnet, mayor, C. Langlois secy., WW imprvs., increasing filtration plant cap. from 500,000 to 1 mgpd., to Atlas Const. Co. Ltd., 679 Belmont St., Montreal, **$173,410.** Bids 4/30. CD 4/17—ENR 4/19.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Los Angeles—City, Bd. P. Wks., City Hall., 72 in. rein.-con. storm drain, Bixby Slough. $353,000. L. Aldrich, City Hall, engr.

Calif., Los Angeles—Los Angeles Co., Hall of Records, 1.71 mi. vitr. clay sanitary sewers, Live Oak St., etc. $31,700. A. Jones, Hall of Records, engr.

Calif., Sacramento—City, City Hall, exten. trunkline sewer from 18 and C Sts. to 12 and N. B Sts. to 7 and N. E Sts. $60,000. A. Kiefer, Sacramento, co. engr.

Conn., Bridgeport—City, P. Brewster, dir. P. Wks., making plans sanitary sewers, Birmingham, Sidney and Arthur Sts. $25,000. H. Rowland, City Hall, State St., engr.

N. C., Wrightsville Beach—City, postponed bids to have been opened May 28, sewage treatment plant imprvs. Will readvertise. P. M. VanCamp, Southern Pines, engr. CD 5/22.

O., Cheviot—City, plans completed trunk storm sewer, Ruckel Ave. between Keukel Ave. and School Sect. Rd. $40,000. H. A. Nunlist, City Bldg., city engr.

Ore., Portland—City, J. O. Bredemeier, aud., City Hall, sewerage sys. N. Tyler St. and N. Willamette Blvd. $26,729. B. S. Morrow, City Hall, city engr.

Pa., Upper Moreland Twp. (Willow Grove)—Upper Moreland Twp., L. M. Olt, secy., 56 Cherry St., Willow Grove, making plans sanitary sewers in various streets. $25,000 or more. G. B. Mebus, 112 Easton Rd., Glenside, boro engr.

BIDS ASKED

Bids Asked June 12

Ont., Toronto — Chairman Bd. Control, sewers, Elmwood Ave. Lanes, etc. for Municipality, $25,000.

Bids Asked June 14

N. C., Wrightsville Beach—Town, Town Hall, sewage treatment plant imprvs. Plans deposit $5. P. M. Van Camp, Southern Pines, engr. CD 5/29—ENR 6/7.

Bids Asked June 15

†**Calif., Oxnard**—City, City Hall, sewage disposal plant, Calif. 4-701-N. $172,000. **FWA.** E. O. Imus, city engr. Currie Engineering Co., Anderson Bldg., San Bernardino, engrs. CD 5/2—ENR 5/10.

†**Wash., Seattle**—Roxbury Heights Sewer Dist., c/o Parker & Hill, engrs., Smith Tower, 2 Ave. and Yesler Way, Zone 4, 27,000 ft. 6- to 18-in sewerage sys. and Imhoff tank, Wash. 45-325-N. Plans deposit $10. $100,000. **FWA.** CD 5/15—ENR 5/17.

Bids Asked June 19

Calif., Los Angeles—Los Angeles Co., Hall of Records, sanitary sewers Verdun Ave., etc., C. I. 1101. $40,000. Extended date. A. Jones, Hall of Records, engr. CD 5/1—ENR 5/3.

Bids Asked June 20

Calif., Los Angeles—City, Bd. P. Wks., City Hall, vitr. clay sanitary sewer, Hatteras St. and Camella Ave. Sewer Dist. $31,643. L. Aldrich, City Hall, engr.

Bids Asked June 28

†**Tex., Amarillo**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., Incinerator Bldg. 23, incl. roads, grading, etc.

Bids Asked June 29

★**N. J., Fair Lawn**—Boro Council, Fair lawn, sewerage sys., appurtenances $500,000. Plans deposit $25. Thomas F. Bowe, 110 William St., New York 7, N. Y., engr.

LOW BIDDERS

Calif., Los Angeles—Los Angeles Co., Hall of Records, May 22, 42,748 ft. 6- to 15-in. vitr. clay sanitary sewers, 115 structures, Gibson Ave., etc., CI 1095, from Bebek & Brkich, 238 W. Florence Ave., **$142,847.** Est. $132,180. CD 5/1—ENR 5/3.

†**D. C., Wash.**—District Comrs., District Bldg., May 25, Savannah Heights storm-water sewer, Savannah and 15 Sts., D. C., 49-178-N, from Leo Butler Co., Silver Springs, Md., **$25,986. FWA.** CD 5/18.

†**Md., Hyattsville**—Washington Suburban Sanitary Comm., Hamilton St., May 25, Constr. 176-S, sewers, sewer house connections, from Nickles Brothers, 4707 Baltimore Ave., **$73,930.** CD 5/8—ENR 5/10.

†**Wyo., Sheridan**—Veterans Admin., Vermont Ave. bet. H and I Sts., Wash. D. C., May 29, buildings, incinerator, chimney, sewerage facilities, filter, tank from Consfructor Co., 786 Eustis St., St. Paul, Minn., **$439,588.** CD 4/27—ENR 5/3.

CONTRACTS AWARDED

Pa., Phila.—City, Dpt. P. Wks., City Hall Annex, sewers, walls, grading Sects. 3 and 4, to E. Ventresca, 820 E. Haines St. **$32,774.** Bids 5/28, awarded 5/31. CD 5/15—ENR 5/17.

SEWERS, etc. (Contracts Awarded, Cont'd.)

Tex., Stratford — City, G. R. Garrison, secy., City Hall, sanitary sewerage sys, disposal plant, to R. H. Fulton & Co., Lubbock, **$76,253.** Bids 5/24. CD 5/15—ENR 5/17.

BRIDGES

PROPOSED WORK

★**Mass., East Boston and Chelsea**—City of Boston, Bridge and Ferry Div., City Hall Annex, Boston, rein.-con., steel bridge between Chelsea and East Boston. **$2,000,000.** Charles A. Maguire & Associates, 1515 Turks Head Bldg., Providence, R. I., engrs. CD 1/31—ENR 2/1.

BIDS ASKED

Bids Asked June 13

Maine—State Hy. Comn., Augusta, Wheeler Stream Bridge, rein.-con., Herman, Penobscot Co. **$25,000.** Plans deposit $15. State Hy. Comn., State House Annex, Augusta, engr.

Bids Asked June 14

Florida—State Road Dpt., F. E. Bayless, chn., Tallahassee, nine 30 ft. concrete deck girder span bridge over Anclote River, Tarpon Springs Rd. 15 S.P. Job 1502-108, Pinellas Co., **$35,000**; reconstructing 83 twelve ft. spans timber on treated timber piling one 30 ft. timber span on steel I-beams, treated timber piling, approx. 1,026 ft. bridge over St. Marys River, Rd. 157 S.P. Job 7400-102, Nassau Co., **$30,000**; repairing 688 ft. timber bridge, constructing fender sys., over Malatcha Pass, Rd. 183, S.P. Job 1206-901, Lee Co., $35,000. J. H. Dowling, state hy. engr.

Bids Asked June 15

Missouri—State Hy. Comn., Jefferson City, two 35 ft., one 49 ft., and two 35 ft. I-Beam spans. Sta. 376 plus 15, over Labadie Creek, Route SM-FAS 280A(1), from Route 100 thru Labadie to Rt. ST. Franklin Co.; four 40 ft. I-Beam spans, 60-, 80-, 60 ft. cont. I-Beam, two 40 ft. I-Beam spans, Route 40-FA 238-A(2), west of Sweet Springs, Saline Co., over **$25,000**; one 39 ft. I-Beam span, 60- 70- 60 ft. cont. I-Beam span, one 39 ft. I-Beam span, over West Fork of Grand River, Sta. 91 plus 80 Route SH-FAS 574-A(2), road from Rte. 169, south to Rte. SE, Gentry Co., over **$25,000**; three 36 ft. concrete deck girder spans, over Wabash Railroad, Sta. 1498 plus 31, Route 24, Sect. 52-A, near Stoutsville, under **$25,000**; three 25 ft. con. slab spans, concrete bents, over Little Bend Creek, Sta. 35 plus 87, Route 71-FA 353-F(1), road from Hickman Mills South, Jackson Co., under **$25,000.** C. W. Brown, ch. engr.

Bids Asked June 19

South Carolina—State Hy. Dpt., J. S. Williamson, ch. hy. comr., rein.-con. structural steel bridge under A.C.L.R.R. and 0.281 mi. asphaltic concrete surfaced approaches on Palmetto St., Florence, Alternate U.S. Route 76, S.C. Docket 21.239, FA Grade Crossing Proj. FA-GM 2514-A(1), Florence Co. Plans deposit $5.

Bids Asked After August 15

★†**Md., Chesapeake City**—U. S. Eng., Penn Mutual Bldg., 6 and Walnut Sts., Phila, Pa., rebuilding highway bridge across Chesapeake & Delaware Canal $2,000,000. Parsons, Klapp, Brankerhoff & Douglas, 142 Maiden Lane, New York 7, N. Y., engrs. CD 4/5—ENR 4/12.

LOW BIDDERS

New Hampshire—State Hy. Dpt., Concord, May 29, 408 ft. deck plate girder bridge, approaches, Conway, Carroll Co., from Engineering Service & Constr. Co., 161 Devonshire St., Boston, Mass. **$157,976.** CD 5/18 ENR 5/24.

Vt., Newfane—State, Dpt. Hys., Montpelier, May 25, WF steel I-beam, Cyclopean concrete bridge, approaches, from F. W. Whitcomb, Cold River Rd., Bellows Falls, **$29,824.** CD 5/15—ENR 5/17.

CONTRACTS AWARDED

Maine—State Hy. Comn., Augusta, Maxfield bridge over Kenduskeag Stream, Bangor, Penobscot Co., to F. Frederick, Pittsfield, **$42,742.** Bids 5/29.

Oklahoma—State Hy. Comn., Oklahoma City, temporary detour Bailey Bridge, approaches over North Canadian River, Eufaula, McIntosh Co., to Ottinger Bros., Petroleum Bldg., Oklahoma City, **$53,216.** Est. $55,000. Bids 5/25, awarded 5/28.

STREETS AND ROADS

BIDS ASKED

Bids Asked June 12

Iowa—State Hy. Comn., Ames, maintenance resurfacing 11.5 mi. Iowa 139, M-2244, Howard Co.; maintenance cover aggregate surfacing Iowa 83, M-4333, Cass Co.; on Iowa 83, U.S. 59, Iowa 168, Iowa 100 and Iowa 192, M-4334, Pottawattamie Co.; maintenance bituminous surfacing 24.8 mi. extension primary roads, Dist. 5, State MD-52; 1.92 mi. in Walnut Woods State Park and Lake Ahquabi State Park, State Parks No. 1-1945; 5 culvert extens., flumes, M-4324, Cass Co.; 39 culvert extens., flumes, M-5280 A-B-C-D, Keokuk, Wapello, Mahaska, Marion Counties; maintenance channel excav. 13,673 cu. yd. M-5279-A Div. 2, Lucas Co. F. R. White, Ames, ch. engr.

Mich., Pontiac—City, H. A. Maurer, city clk., City Hall, curbing, guttering, drainage, etc. Lowell St. Plans deposit $5. L. W. Wrenn, city engr.

Minn., Virginia—City, J. C. Milroy, Jr., clk., City Hall, street paving, etc. $25,000. J. W. Hedja, city Hall, city engr.

N. Y., New York—President Bronx Boro, Bronx County Bldg., 851 Grand Concourse, Zone 51, sheet asphalt on concrete repaving E. 137 St., Grand and Vyse Aves.

★**Ohio**—State Hy. Dpt., Columbus, widening 1.675 mi. Sect. K-1, or SH 47, 3 ft. on each side with waterbound macadam and priming coat, Licking Co., $17,600; furnishing asphaltic concrete on Sect. New Philadelphia of SH 412, US 250, Tuscarawas Co., $10,110; asphaltic concrete resurfacing 4.989 mi. Sects. M and L of SH 127, US 30-S, Allen Co., $57,100; 3.181 mi. Sects. G-1, G-2, E, F and Crestline of SH 203 and 204, US 30-N, Crawford Co., $38,700; 7.711 mi. Sect. A of SH 50, US 62 and on Sects. T-2 and I of SH 10, US 22, Fayette Co., $104,780; 4.973 mi. Sects. Q-1, Q-2 and Q-3 of SH 4, US 23, Franklin and Delaware Counties, $78,060; 1.992 mi. Sects. Brilliant and M-2 of SH 7 and Sect. Smithsfield of SH 678, Jefferson Co., $51,230; bituminous surface treatment on 20.74 mi. various sections SH Nos. 339, 347, 349 and 986, Coshocton and Muskingum Counties, $37,931; 20.48 mi. SH Nos. 594, 310 and 312, Fulton and Williams Counties, $47,-897; 18.09 mi. SH Nos. 513, 349, 26 and 352, Guernsey and Muskingum Counties, $44,087; 26.37 mi. Sects. SH Nos. 537, 682, 51, 59, 529 and 275, Lucas and Wood Counties, $50,305; widening, asphaltic concrete resurfacing 1.259 mi. Sects. Broadview Heights and Brecksville of SH 36, Cuyahoga Co., $27,700.

Washington—State Hy. Dpt., C. E. Hickey, dir., Olympia, grading, bituminous surface treatment plant mix type paving 0.351 mi. Renton Ave. exten. south of Seattle, King Co.; special leveling treatment 13.92 mi. and non-skid single seal treating 5.36 mi. Primary State Hy. 1, Blanchard Bridge and Clayton Bay vicinity, Whatcom and Skagit Counties; non- skid single seal treating 118.01 mi. and light bituminous surface treating 6.37 mi. Primary State Hys. 2, 7 and 10, Secondary State Hys. 10-A, 15-C, Chelan, Douglas, Grant and Okanogan Counties; selected roadway borrow resurfacing, crushed stone surfacing, stockpiling crushed cover stone, constructing 7.61 mi. light bituminous surface treatment Primary State Hy. 6, Pend Oreille Co. Plans deposit $2 each.

West Virginia—State Road Comn., D. McClaugherty, secy., Charleston, grading, draining, concrete paving, bridge 0.081 mi. State Route 41 to Mt. Hope Rd. (State Route 61), Fed. Aid Secondary Proj. FAS 302-B(1 (6247), Fayette Co.; surface treating 8.2 mi. State Route 57, State Secondary Project 5183, Barbour Co.; 13.1 mi. U. S. 119 on Drawdy Mountain via Nellis to U. S. 119 on Lens Creek Mountain Secondary I (Secondary Route 1), State Secondary Projs. 5229 and 5252, Boone Co.; 10.82 mi. Clay Junction-Ivydale Rd. (State Routes 4 and 16), S. P. 3285 A and B, Clay Co.; 10 mi. Dundon toward Widen Secondary Rd. (Secondary Route 111, State Secondary Project 5103, Clay Co., 37.93 mi. Moorefield via Baker to Virginia State Line Rd., (State Routes 55 and 259), S. P. 3214 and 3471 A and B, Handy Co.; 4.4 mi. Clarksburg streets (U. S. Routes 50 and 19 State Route 20, S. P. 3657, 3659, 3661, 3662 and 3663, Harrison Co.; 4.28 mi. Charles Town-Virginia State Line Rd. (State Route 9), S. P. 3353, Jefferson Co.; 12.6 mi. Summit Point to Kearneysville Secondary Rd., State Secondary Projs. FAS 7 and 5235, Jefferson Co.; 7.7 mi. End Concrete to Quick Secondary Rd. (Secondary Route 49-Indian Creek), State Secondary Proj. 5275, Kanawha Co.; 10 mi. U. S. 19 at Bendale to Sec. 15 at Vandalia Secondary Rd. (Secondary Route 30, State Secondary Proj. 5392, Lewis Co.; 12.5 mi. Man to Pardee Secondary Rd. (Secondary Route 16), State Secondary Proj. 5168, Logan Co.; 2.7 mi. New Creek Cut Off, U. S. 50 to U. S. 220 Secondary Rd. (Secondary Route 7), State Secondary Proj. 5178, Mineral Co.; 27.8 mi. Junction Secondary 14 at Buffalo Creek to Gilbert Rd. (U. S. Routes 52 and 119, S. P. 14 Pt., 86,3119, 3271, 3120, 3345, Mingo Co.; 11.5 mi. Brandywine-Sugar Grove Secondary Rd. (Secondary Route 21), State Secondary Proj. 5713, Pendleton Co.; 2 mi. Aurora-Terra Alta Secondary Rd. (Secondary Route 53), 10 mi. Cranesville Secondary Rd. (Secondary Route 57, State Secondary Projs. 5223 and 5755, Preston Co.; 6.8 mi. Sophia to Tams and Top Tams Mountain to Slab Fork Secondary Rd. (Secondary Route 30), State Secondary Projs. 5293 and 5292, Raleigh Co.; 5.4 mi. Pumpkintown to Barbour Co. line Secondary Rd. (Secondary Route 17), State Secondary Proj. 5455, Randolph Co.; 18.3 mi. Pennsboro-Pullman-Auburn-Gilmer Co. Line and Pullman-Harrisville Secondary Roads (Secondary Routes 7 and 9), State Secondary Projs. 5350 and 5172, Ritchie Co.; 5.9 mi. Webster-Flemington Secondary Rd. (Secondary Route 13), State Secondary Proj. 6134, Taylor Co.; 11.7 mi. Hollow Meadows, via Horseshoe to Leadmine Secondary Rd., (Secondary Routes 1 and 7), State Secondary Projs. 5459 and 5764, Tucker Co.; 6.6 mi. Buckhannon-Barbour Co. line Secondary Rd. (Secondary Route 4-Posts Mill Rd.), State Secondary Proj. 5[illegible] Upshur Co.; 10.9 mi. Pig Sandy Rd Junction Sec. 1/1 via Cyrus to Centerville Secondary Rd. (Secondary Routes 1 and 19[illegible] State Secondary Projs. 5196 and 5424, Wayne Co.

Ont., Toronto—Chairman Bd. Control, concrete paving 6 streets, for Municipality $50,000.

Bids Asked June 14

★**Florida**—State Road Dpt., F. E. Bayless, chn., Tallahassee, reworking, widening limerock base, bituminous surface treating 7.11 mi Rd. 8, S.P. Job 0906-108-108, Highlands Co., $75,000; bituminous retread surface course 1.21 mi. Rds. 5 and 15, S.P. Job 0801-109, 0.368 mi. Rd. 34, Job 0805-104, both Hernando Co., 4.19 mi. Rd. 23, Job 1405-108, and 0.27 mi. Rd. 34, Job 1407-105, both Pasco Co., $30,000; 7.8 mi. Rd. 15, S.P. Job No. 0804-104, Hernando Co., $35,000; 8.384 mi. Rd. 15, Job 1502-109, Pinellas Co., 1.283 mi. Rd. 5, S.P. Job 1301-114, 6[illegible] mi. Rd. 161, Job 1305-104, both Manatee Co., 0.472 mi. Rd. 5, Job 1702-107 and 1.492 mi. Rd. 18, Job 1703-106, 0.391 mi. Rd. 18, Job 1704-103, bituminous retreating 3.712 mi. Rd. 18, Job 1704-901, all foregoing Sarasota Co. $75,000; bituminous retread surface course 0.692 mi. Rd. 2, S.P. Job 0601-[illegible] 0.631 mi. Rd. 32, Job 0603-105, 0.417 mi. Rd. 63, Job 0605-105, all foregoing Hardee Co., 3.167 mi. Rd. 18, Job 0404-112, De Soto Co., $60,000; 2.207 mi. Rd. 2-A, S.P. Job 2602-105, Alachua Co., $20,000; 0.47 mi. Rd. 3, S.P. Job 7101-104, 0.927 mi. Rd. 48, both Clay Co., $30,000; 0.845 mi. Rd. 2, S.P. Job 3201-104, Hamilton Co., $20,000; approx. 1.38 mi. Rd. 3, S.P. Job 7904-107, 5.462 mi. Rd. 3, Job 7905-110, 0.756 mi. Rd. 21, Job 7907-107, 5.449 mi. Rd. 3, Job 7905-110, 0.756 mi. Rd. 21, Job 7907-105, bituminous mineral seal coat surfacing approx. 0.44 mi. Road 4[illegible] Job 7915-901, all foregoing Volusia Co., $120,000; sand bituminous road mix paving 4.115 mi. Rd. 63, S.P. Job 0605-106, Hardee Co., $45,000; 1.06 mi. Rd. 277, S.P. Job 4906-102, Franklin Co., $20,000; 1.515 mi. Rd. 5, S.P. Job 9109-102, Okeechobee Co., $30,000; 1.878 mi. Rd. 398, S.P. Job 7700-102, Seminole Co., $20,000; 0.43 mi. Rd. 578, S.P. Job 5109-103, Gulf Co., $20,000; bituminous sand clay surface treating 7.915 mi. Rd. 159, S.P. Job 5313-104, Jackson Co., $110,000; bituminous mineral seal coat surfacing 4.661 mi. Rd. 500, S.P. Job 1114-901, 30.94 mi. Rd. 500, Job 3608-902, 1.4 mi. Rd. 2, Job 3601-902, bituminous retread surface course 8.771 mi. Rd. 5, Job 3603-105, all foregoing in Marion Co., $80,000; bituminous mineral seal coat surfacing, bituminous retread surface course 9.607 mi. Rd. 2, S.P. Job Nos. 1101-104 and 1101-901, Lake Co., $20,000; bituminous mineral seal coat surfacing 4.5 mi. Rd. 44, Job 7914-901, $10,000; widening pavement, bituminous retread surface course, approx. 2.70 mi. Rd. 4, S.P. Job 7901, $35,000, both Volusia Co.; concrete widening strip, asphaltic concrete surfacing 7.325 mi. Rd. 4, S.P. Job 7002-112, Brevard Co., $130,000; asphaltic concrete surface course, 1 sect. and sand lime rock base with widening, applying bituminous mineral seal coat 14.295 mi. Rd. 4, S.P. 7802-103, St. Johns Co., $90,000; 8 in. R.B.S.T. paving 0.251 mi. Rd. 403, Access Rd., Proj. DA WR-34-A(1), Job 7515-301, Orange Co.; sand bituminous road mix paving, etc. 0.281 mi. Rd. 162, S.P. Job 9404-105, St. Lucie Co., $15,000. J. H. Dowling, State hy. engr.

Ill., Decatur—J. M. Weir, city engr., Decatur, maintenance, bit. seal coat surfacing 21.9943 mi. road.

Ont., Cayuga—Haldimand Co., Cayuga, bituminous armor coat wearing surface on crushed stone surfacing, ditching, shouldering 6 mi. hy. $30,000. F. Rousell, Court House, P.O. Box 285, engr.

Ill., Belleville—City, bit. concrete paving 0.6404 mi. Sec. 2-CS; bit. concrete paving and pavement widening, installing pipe culverts, 0.7359 mi. Sec. 4-CS. J. C. Thompson, city engr.

Ia., Elkader—Bd. Supervs. Clayton Co., crushed stone surfacing 32.72 mi. various roads, involving 16,365 cu. yd. class A crushed stone on road. Over $25,000. H. E. Hoover, Elkader, co. engr.

Kansas—State Hy. Dpt., **Hiawatha**, bit. mat. surfacing 11.16 mi. Proj. K 1174 Pts. 1 and 2 Johnson Co.; grading 0.16 mi. Proj. FAS 167 B, Pt. 1, Douglas Co.; 0.765 mi. Proj. FAS 167 B, Pt. 2, Leavenworth Co., grading, paving 0.074 mi. Proj. K 1177, Johnson Co.; resurfacing material 12.824 mi. P. 1777; 7.573 mi. P. 1778 AB, both Marshall Co.; bit. sealing 10.007 mi. P. 1764 AD, Brown Co.; 6.089 mi. P. 1769 AB; 5.972 mi. P. 1770 AD, both Jefferson Co.; 11.969 mi. P. 1771, 5.39 mi. P. 1772, both Johnson Co.; 2.996 mi. P. 1773, 1.2 mi. P. 1774, both Leavenworth Co.; bit. drag mat. surfacing 1.552 mi. Proj. K 1179, Douglas Co.; 1.883 mi. Proj. K 1172, 4.605 mi. Proj. K 1173, both Johnson Co.; 8.71 mi. P. 1806, 1.4 mi. Proj. K 1180, both Leavenworth Co.; light type surfacing 0.16 mi. P. FAS 167 B Pt. 1, Douglas Co., 4.25 mi. Proj. K 1170, 0.765 mi. Proj. FAS 167, D Pt. 2, both Leavenworth Co.; bit. surface reconstructing 13.464 mi. Proj. K 1163, Pts. 1 and 2; 6.444 mi. Proj. K 1164 both Brown Co.; bit. mat. surfacing 8.615 mi. P. 1171, Atchison Co. R. C. Keeling, Topeka, engr.

Missouri—State Hy. Comn., Jefferson City, seal coat 17.34 mi. Route 61, Div. 6, Group 1,

EETS, etc. (Bids Asked, Cont'd.)
Wentzville north and east, St. Charles
paving 1.356 mi. Route SOO FAS 212
, from Springfield Airport to Route
Greene Co.; grading, paving 2.068 mi.
40 FA 238-A-2, from west of Sweet
g, Saline Co., all foregoing over $25,-
0.186 mi. Rt. 24, Sect. 52-A, from near
tsville, Monroe Co., under $25,000; 0.391
Route 71-FA 353-F(1), from Hickman
south, Jackson Co., under $25,000;
ing, surfacing 0.325 mi. Route SH-FAS
A(2), road from Rte. 169, south to Rte.
Gentry Co., under $25,000; 0.349 mi.
e SM-FAS 280-A(1), from Route 100
Labadie to Rt. S.T., Franklin Co.,
r $25,000; pipe underdrain Route SF-
M-2a, road from Route 40 at Oak
e south to Route 50, Jackson Co., under
00. C. W. Brown, ch. engr.

orth Dakota—State Hy. Dpt., N. O.
, comr., Bismarck, grading, gravel
acing, etc. 3.554 mi. Proj. WER19A,
Kenzie Co.; 2.992 mi. Proj. WER21, Mor-
and Sioux Counties; stabilized shoulders,
oating 19.308 mi. Proj. SN-FAP 279 B
and 279 A(6) Stutsman Co.; stab. base,
surf. and incidental work 19.386 mi.
SN-FAP 305(15), Morton Co., oil mix
el surfacing, stockpiling Projects SAP
391D, 283B, 260H, 305B, 305C, 174A,
, and 306-A, Billings, Stark, Morton,
eigh and Kidder Counties; gravel re-
ishment 138.513 mi. SAP 33.330 Pt., 141,
97,183 Pt., 254A Pt., 254B Pt., 254C,
185AB, 188 and 142 Pt., Logan and
ntosh Counties; 94.06 mi. projs. SAP
263E, 263F, 263C, 263D, 263A, 263B,
42 A Pt., 179, 238, 372A Pt., 372B and
Pt., Rolette and Towner Counties;
66 mi. Proj. SAP 470, 470B, 312A, Pt.
373A, McKenzie Co.; structural, inci-
al work, 0.782 mi. Proj. WER 16F,
nt Co.; 2.992 mi. Proj. WER 21, Morton
Sioux Counties; 0.16 mi. Proj. WER
0.284 mi. Proj. WER 22B, 0.227 mi.
WER 22C, foregoing Mountrail Co.

Bids Asked June 19

ew Jersey—At Office Executive Director,
of New York Authority, H. S. Cullman,
111 8 Ave., New York 11, N. Y., repav-
portions roadways connecting New Jersey
e Hy. Rts. 2, North Bergan with viaduct
dway leading to Lincoln Tunnel, Contr.
2. Plans deposit $10; adv. ENR 6/7.

uth Carolina—State Hy. Dpt., J. S. Wil-
son, ch. hy. comr., Columbia, bituminous
facing 2.6 mi. U.S. Rte. 17, Ashley River
dge to Maryville, Docket 10.289, Charles-
Co.; 5.652 mi. Route 92, S. C. Docket
31, Union Co.

Washington — State Hy. Dpt., Olympia,
ding, draining, surfacing 11.06 mi. Prim-
State Hy. 12, Pacific Co.; surfacing and
t bituminous surface treatment 3.9 mi.
mary State Hy. 10, Entiat to Pateros,
lan Co. Plans deposit $2 each.

Bids Asked June 20

alifornia—State Div. Hys., Sacramento,
airing by reshaping shoulders, applying
ne coat and placing plant mix surfacing
r existing surfacing and portions shoul-
, placing imported borrow on shoulders
applying penetration treatment, 6 mi.
between Mojave and Cinco, Kern Co.;
nt mix surfacing 7.1 mi. hy. between
nislaus River and Manteca, San Joaquin
; furnishing, placing imported base ma-
ial, applying seal coat thereto on 1.9
hy. between Navarro River and Mendo-
o. Mendocino Co. G. T. McCoy, P. Wks.
g., Sacramento, state hy. engr.

Bids Asked June 21

a., Cedar Rapids—Bd. Supervs. Linn Co.,
ding, incidental work 13.32 mi. secondary
ds, involving 182,330 cu. yd. Class 2
av., 2,136 lin. ft., roadway pipe culverts,
48 lin. ft. entrance pipe culverts. Over
,000. W. H. Behrens, Cedar Rapids, co.
gr.

Minn., Owatonna—Steele Co., M. Ditlev-
, aud., surfacing 11 projects 14.280 cu.
gravel and 14.345 cu. yd. crushed lime-
ne. $25,000. J. E. Herzog, co. hy. engr.

Bids Asked June 26

Kan., Wadsworth—Veterans Admin., Ver-
nt Ave. between H and I Sts. N.W., **Wash.**
D. C., resurfacing roads. (No. 2172).

Bids Asked

Kansas—State Hy. Dpt., **Oberlin**, rejected
s May 9, imprv. 14.41 mi. **Smith Co.**, 5.587
Gove Co. CD 4/25—ENR 5/3.

OW BIDDERS

California—State Div. Hys., Sacramento,
May 29, imprv. 2.9 mi. Mendocino Co.,
m A. R. McEwen, Box 1017, Sacramento
2,337***12.2 mi. Sutter and Yolo Counties,
m L. L. Rice, 605 14 St., Marysville,
2,690***8.1 mi. Yolo Co., from N. M. Ball
ns. Box 430, Berkeley, **$117,926*****3.4 mi.
vada Co., from Harms Bros., Rt. 4, Box
20, Sacramento, **$46,035*****4.8 mi. Sacra-
ento and Yolo Counties, from A. Teichert
Son, Inc., Box 1113, Sacramento, **$81,635**
*8.5 mi. Sacramento Co., from Sheldon
l Co., Main St., Suisun, **$41,733*****3 mi.
noma Co., from Louis Biasotti & Son,
W. Clay St., Stockton, **$81,585.** CD 5/11.

California—State Div. Hys., Sacramento,
ay 24, imprv. 15.1 mi. **Riverside Co.**, from
A. Johnson, 421 Pearl St., **Laguna Beach,**
00,581*****2.1 mi. Ventura Co., from Oswald
os, 366 E. 58 St., Los Angeles, **$35,400*****
3.1 mi. San Bernardino Co., from Geo. Herz
& Co., P.O. Box 191, San Bernardino, **$33,-
943.** CD 5/4—ENR 5/10.

Calif., Los Angeles—Los Angeles Co., Hall
of Records, May 22, imprv. Washington
Blvd., Rio Hondo to Rosemead Blvd., Cash
Contr. 551, from Griffith Co., 1060 S. Bway.,
$44,032. O. F. Cooley, Hall of Records, road
comr.

Calif., San Francisco—Public Utilities
Comn., City Hall, May 29, repairing street
or sidewalk openings where paving has been
removed for San Francisco Water Dpt.,
Spec. 396, from Pacific Pavements Co. Ltd.,
85 Barstow St., **$34,103.** J. J. Casey, City
Hall, city engr.

Connecticut—State Hy. Dpt., Hartford,
May 28, imprv. hy. Brookfield, from General
Supply Co., 155 Island Brook Ave., Bridge-
port, **$64,189;** hy. Burlington, from Arute
Bros. Inc., 56 S. Main St., New Britain,
$28,925. CD 5/17—ENR 5/24.

D. C., Wash.—District Comrs., District
Bldg., May 18, surface treating various roads,
streets and avenues, from Corson & Gruman
Co., 33 and K Sts. N.W., **$39,981.**

Louisiana—State Hy. Dpt., Baton Rouge,
May 23, imprv. 1.311 mi. Terrebonne Parish,
from W. R. Aldrich Co., Kalwrah University
Gardens, Baton Rouge, **$53,920.** CD 5/7—
ENR 5/10.

Mass., Falmouth—Bd. Selectmen of Fal-
mouth at State Dpt. P. Wks., 100 Nashua
St., Boston, June 1, repairing 3 sects. Beach
and Nobska Rds., for State, Barnstable Co.
and Town (Chap. 90 Project), from D. J.
Roach, 55 Spring St., East Bridgewater,
$29,491. CD 523—ENR 4/26.

Mass., Falmouth—Bd. Selectmen of Fal-
mouth at State Dpt. P. Wks., 100 Nassau St.,
Boston, June 1, repairing Menauhant Rd. and
approaches to Green Pond Bridge, for State,
Barnstable Co. and Town (Chap. 90 Project),
from M. F. Roach Co., 27 Central St., East
Bridgewater, **$36,043.** CD 5/23.

★ **Nebraska**—State Dpt. Roads & Irriga-
tion, Lincoln, May 24, from Lee & John-
son, Inc., 215 Ins. Exch. Bldg., Sioux City,
Ia., imprv. 14.2 mi., Keith and Perkins
Counties, **$64,611*****from Inland Constr. Co.,
3867 Leavenworth St., Omaha, 1 mi. Butler
Co., **$45,057;** 4.7 mi., Scottsbluff Co., **$32,057;**
3.5 mi. Kimball Co., **$28,784*****from North-
western Engineering Co., Rapid City, S. D.,
10.1 mi. Garden Co., **$33,241*****from Yant
Constr. Co., 916 N. 45 St., Omaha, 8.8 mi.
Saline Co., **$103,608*****to Clark Bros., Peoria,
Ill., 4.003 mi. Marshall Co., **$54,712*****to
Vandigriff Const. Co., 4708 N. Court St.,
Montgomery, 10.15 mi. Randolph Co., **$77,115.**
Grand total **$982,518.** Bids 5/25. CD 5/18.

Ala., Anniston—Grading, curbing, gutter-
ing, placing approx. 12,000 cu. yd. 2 in. con-
crete cold mix on 6 in. slab or stone paving
streets, to Pitts Douglas, Anniston. **$35,003.**

Ala., Birmingham—Jefferson Co., Birming-
ham, imprv. 63.1 mi. roads, to Couch Constr.
Co., 111 S. Foster St., Dothan, **$76,547.** Bids
5/2. CD 4/26—ENR 5/3.

Arkansas—W. H. Sadler, State Hy. Dpt.,
Little Rock, crushed stone surfacing 17 mi.
Heber Springs-Searcy Rd., Cleburne Co., to
Ben M. Hogan & Co., 115 N. Spring St.,
Little Rock, **$52,905.** Bids 5/23. CD 5/21.

Calif., Alhambra—Jacob Bean Securities
Co., Alhambra, rock and oil paving, con-
crete curbing, gutters, walks, sewers, light-
ing in Story Pl., Alhambra Rd., etc., to
W. E. Hall Co., 1025 Westminster Ave.,
$31,000.

Ill., Wheaton—Clerk Du Page Co., County
Court House, maintenance 18.3919 mi. hys.,
to Arrow Petroleum Co., 7419 Franklin St.,
Forest Park, **$55,384.** Bids 5/21. CD 5/15.

Iowa—State Hy. Comn., Ames, imprv. 55.7
mi. Washington Co., to Automatic Gravel
Products Co., Muscatine, **$31,623*****82.221 mi.
P. MD-23, to Cameron, Joyce & Co., Keokuk,
$117,515***17.585 mi. Md-32, to Jensen &
Krage, 2220 Hawkeye Dr., Sioux City, **$32,853**
*****88.299 mi. P. MD-62, to Hargraves Const.
Co., 2424 Bever St. S.E., Cedar Rapids,
$93,627, foregoing maintenance projects
throughout state. Grand total $275,618. Bids
5/28. State Hy. Comn., Ames, rejected bids
May 28, imprv. 35.1 mi. Lee Co. 8.3 mi. Lucas
Co., no bids received May 28, imprv. 2.9
mi. Clarke Co. CD 5/22

Kansas—State Hy. Dpt., **Mankato, imprv.**
17.334 mi. Jewell Co., to H. Henery, **Ottawa,**
$68,864; 7.352 mi. Chase Co. to Storms-Frew
Const. Co., Fort Riley, **$30,151.** Rejected bids
May 11, imprv. 50.944 mi. hys. Geary, Clay,
Jewell, Republic, Cloud, Ottawa, Saline,
Counties. CD 5/2.

Kansas—State Hy. Dpt., Okaloosa, imprv.
16.687 mi. Jefferson Co., to Reno Const. Co.,
Overland Park, **$70,457.** Bids 5/18. State
Hy. Dpt., Okaloosa, rejected bids May 18,
imprv. 98.572 mi. hys. Marshall, Brown,
Jackson, Jefferson, Pottawatomie, Shawnee
and Atchison Counties. CD 5/9.

La., Lafayette—City, C. C. Colomb, mayor
patching, grading, sealing approx. 280,000
sq. yd. blacktop paving various streets, to
Pierson Const. Co., La Natl. Bank Bldg.,
Baton Rouge, **$63,350.** Bids 5/22, awarded
5/23. CD 5/9.

Mass., Woburn—City, P. Wks. Dpt., City
Hall, resurfacing various streets, own forces.
$59,000.

Minnesota — State Hy. Dpt., St. Paul,
crushing, screening, loading, hauling about
23,920 cu. yd. mineral aggregate for gravel
surfacing and bituminous surface repairs,

STREETS, etc. (Contracts Awarded, Cont'd.)

screen load and haul about 13,661 cu. yd. load and haul about 13,450 cu. yd., to Hector Constr. Co., Hector, **$27,591.** Bids 5/14. CD 4/19—ENR 4/26, Minn., Virginia.

Minnesota—State Hy. Dpt., St. Paul, applying bituminous seal coat, about 77 mi. Group 2, Main. Dist. 15, to J. W. Craig Co., 1814 NE California St., Minneapolis, **$30,828.** Bids 5/21. CD 5/1—ENR 5/3.

Minnesota—State Hy. Dpt., St. Paul, bituminous wearing surface 2.4 mi. S.P. 6909-12, 6925-07 and 6933-16, in Duluth, to Megarry Bros., 437 33 Ave. N., Minneapolis, **$32,999.** Bids 5/25.

Montana—State Hy. Comn., Helena, crushing, stockpiling 48,000 cu. yd. Grade A top course crushed gravel surfacing and 4,400 cu. yd. ½ in. crushed stone chips from 9 setups, Glacier, Toole, Hill, Pondera and Liberty Counties, to Nolan Bros., 20 N. 2 St., Minneapolis, Minn., **$68,654,** est. $86,000; excavating, selected pit-run gravel backfilling, etc. 2.05 mi. hy., constructing seal coat surfacing, etc. on 22.4 mi., crushing, placing ½ in. crushed stone chips cover on 13.7 mi. and placing state-furnished chips on 8.709 mi. U. S. Hy. 2, etc. Flathead and Lincoln Counties, to Nilson-Smith Constr. Co., 214 5 Ave. S., Great Falls, **$52,135.** Bids 5/26.

North Carolina—State Hy. and P. Wks. Comn., Raleigh, bituminous pavement mixture paving 24.27 mi. hys. Codes 5900-923-3, 5900-941-3, both Catawba Co., codes 5900-926-3, 5900-946-3, both Cleveland Co., Codes 5900-902-3, 5900-908-3, 5900-932-3, 5900-936-3, 5900-939-3, bet. Sect. 9-6081-138, all Gaston Co., Code 5900-930-3, Lincoln Co.; Codes 5900-949-3, and 5900-937-3, Iredell Co., Code 5900-952-3 and Bet. Sect. 9-6-85-115 Polk Co., Code 5900-917-3, Rutherford Co., to Brown Paving Co., Pineville Rd., Charlotte, **$300,617.** Bids 5/1.

Pa., Phila.—City Dpt. P. Wks., City Hall Annex, Sched. C-3, 6th Highway Dist., covering method, Sched. C-1, asphalt resurfacing 3, 5 and 6 Highway Dists., to Seaboard Constr. Co., 1528 Walnut St., **$40,200** and **$34,510** respectively; Sched. C-2, asphalt resurfacing 1, 2, 3, 5, and 7th Dists., covering method, and Sched. D-2, asphalt repaving various streets, to Union Paving Co., Broad and Stiles St., **$43,678** and **$84,902** respectively. Grand total $203,290.

Washington—State Hy. Dpt., Olympia, mfg. and stockpiling crushed stone surfacing and mineral aggregates on Primary State Hys. 14 and 21 and Secondary State Hys. 21-A and 21-B, Port Orchard to Gig Harbor, Kitsap and Pierce Counties, to L. J. Birbeck, Sheridan St., Bremerton, **$40,070;** imprv. 17.9 mi. Asotin Co., to R. B. Johnson Co., Lewiston, Idaho, **$27,829.** Bids 5/29. CD 5/15—ENR 5/17.

Washington—State Hy. Dpt., Olympia, 63 ft. rein.-con., steel girder bridge, long, on Primary State Hy. 8, grading 0.483 mi. approaches, Klickitat Co., to C. E. Oneal, Ellensburg, **$31,644.** Bids 5/29. CD 5/15—ENR 5/17.

Wash., Olympia—Thurston Co., Courthouse, imprv. 52 mi. hys., to J. F. Forbes & Co., Olympia, **$48,570.** Bids 5/21. CD 5/25—ENR 5/31 under LB.

Ont., Kingston—City, new pavements on city streets, resurfacing old pavements, to Warren Bituminous Paving Co. Ltd., 1454 Bloor St., Toronto, and W. H. Harvey & Son, 133 Brock St., Kingston, about **$70,000.**

Ont., Sault Ste. Marie—City, asphalting various streets, to Sterling Const. Co. Ltd., 2492 Sandwich St. E., Windsor, **$45,122.**

Saskatchewan—Dpt. Hys. & Transportation, Regina, road work, Project 1, Regina, to Geo. C. Solomon, Regina, **$34,000;** Project 5-3, to Tomlinson Const. Co. Ltd., 1 Somerset Bldg., Winnipeg, Man., **$39,000.** Bids 4/30.

Sask., North Battleford — Municipality, hardsurfacing streets, day labor, **$75,000.**

Sask., Saskatoon—Municipality, J. Anderson, city clk., sidewalks, curbing 10 streets, constructing boulevards, paving 7 streets, day labor, **$34,495;** paving 4 streets on new stone base, on 18 streets surface treatment, 7 streets on existing base, day labor, **$75,690.**

EARTHWORK, WATERWAYS

PROPOSED WORK

★**Calif., Long Beach**—City Harbor Dpt., 1333 El Embarcadero, 500 ft. exten. diversion dike on west side of mouth of Los Angeles River seaward. $500,000. R. R. Shoemaker, 1333 El Embarcadero, engr.

Wis., Greenfield (P.O. Milwaukee)—Milwaukee County Park Comn., Court House, Zone 3. 1,100 ft. open ditch and 150 ft. rein.-con. tunnel. $65,000. E. A. Howard, c/o owner, engr.

BIDS ASKED

Bids Asked June 13

Ont., Fort William—Secy. Dpt. P. Wks., Ottawa, dredging 503,000 cu. yd. sand, silt and clay, in 4 areas Kaministikwia River and 4 areas in Mission River. $225,000.

LOW BIDDERS

†**Nebraska**—Bureau of Reclamation, Hemingford, May 26, earthwork, structures, Sturgeon and Fairfield Laterals and sublaterals, Mirage Flat Project, Spec. 1098, from Roush Constr. Co., Crawford, **$168,655.** CD 4/24—ENR 4/26.

†**Oregon**—Bureau Reclamation, Bend, May 23, earthwork, structures, lateral M-41 and sublaterals and lateral M-42, Deschutes Project, Spec. 1097, from Blickle & Cater, 400 N. Thompson St., Portland, **$158,420.** CD 4/24—ENR 4/26.

CONTRACTS AWARDED

Conn., Hartford—City, Bd. Contr. & Supply, 550 Main St., Contr. 34, flood protection, constructing retaining wall, to Brooklyn Const. Co., 68 Pratt St., **$20,748.**

†**Fla., Jacksonville**—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, dredging approx. 1,516,000 cu. yd. material, mostly sand and shell from shoaled areas St. Johns River Channel between mouth of Trout River and ocean, to Hill Dredging Corp., Ventnor City, N. J., **$204,660.** Awarded 5/22.

†**Ia., Sioux City**—U. S. Eng., 1709 Jackson St., Omaha, Neb., Willow bank and protective mattress on Missouri River Bank, to W. P. McGeorge, Pine Bluff, Ark., **$63,000.**

†**North Carolina**—U. S. Eng., 308 Customhouse, Wilmington, dredging, exten. from channel, leading into Manteo thru Roanoke and Pamlico Sound, Dare Co., to C. Walker Hodges Dredging Co., New Bern, **$31,020.**

Pa., Indiantown Gap (br. Annville)—Commonwealth of Pennsylvania, C. M. Woolworth, secy. Dpt. Property & Supplies, Harrisburg, impounding dam and recreation field, at Indiantown Gap Military Reservation, to Marshall Co., 1506 Mayflower St., Harrisburg, **$164,833.** Bids 5/31, awarded 6/1. CD 5/24.

†**Pa., McKeesport**—U. S. Eng., 625 New Federal Bldg., Pittsburgh, dredging 40,000 cu. yd. Monongahela River, to Monongahela & Ohio Dredging Co., 2241 Oliver Bldg., Pittsburgh. Est. **$26,974.**

†**Tex., Henderson**—U. S. Eng., 606 Santa Fe Bldg., Galveston, levee repairs for Henderson County Imprv. Dist. 1, Trinity River (C1-8), to Clynch Brothers, P.O. Box 564, Childress, **$29,385.**

LATIN AMERICA

Mexico—State of Guerrero, Capital City, Acapulco, constructing, repairing roads, to Julio Hernandez, Tlalchapa, Gro., **$250,000.**

Mexico—State of Jalisco, Foc. Marcelino Garcia Barragan, Capital City, Guadalajara, will finish 2 roads, Guadalajara to Chamela stretch and Guadalajara to La Piedad, in Guadalajara and vicinity by own forces. **$250,000.**

Mexico—State of Vera Cruz, Jalapa, will finish and some new construction hy. between Vera Cruz and Alvarado, by own forces. **$110,000.**

Mexico, Benaventura—State of Chihuahua, Eugenio Pradio, state senator, Capital City, Chihuahua, will construct dam for irrigation purposes, by own forces. **$350,000.**

Mexico, Tule de Allende—City, will construct, repair principal hys. and streets, incl. Hidalgo, Morelos, 5th de Mayor and Zaragoza Sts., by own forces, **$100,000.**

PUBLIC BUILDINGS

PROPOSED WORK

†**Ala., Gadsden**—Forrest Hospital, Gadsden, plans by P. W. Hofferbert, Gadsden, constructing, remodeling Forrest Hospital, $200,000. **FWA.**

†**Ariz., Avondale**—Avondale School Dist., Avondale, plans by Lescher & Mahoney, Title & Trust Bldg., Phoenix, school, $90,000. **FWA.**

†**Ariz., Yuma**—Pub. Housing Auth., NHA, 760 Market St., San Francisco, Calif., 20 single person dwelling units, Ariz. 2387.

★†**Calif., Burbank**—St. Josephs Hospital, 501 S. Buena Vista St., hospital bldgs., nurses home, etc., Calif. 4-472-N. $510,000. **FWA.** CD 5/24—ENR 5/31.

†**Calif., Hunters Point** — Federal Works Agency, Box 772, 223 Fulton St., Berkeley, plans by Dodge A. Riedy, city archt., City Hall, school addns. of 10 classrooms and 3 administration bldgs., Calif. 4-548-F. $55,000.

†**Calif., Indio**—Pub. Housing Auth., NHA, 760 Market St., San Francisco, plans by G. Stanley Wilson, 3681 6 St., Riverside, 25 temporary family dwelling units, Calif. 4076.

Calif., Oakland — Children's Hospital of East Bay, 5105 Dover St., plans by D. D. Stone and L. B. Mulloy, Assoc., 381 Bush St., San Francisco, two story, rein.-con., and ground floor wing and exten. 3 story north wing, west of present hospital, $400,000.

†**Calif., Victorville**—Pub. Housing Auth., NHA, 760 Market St., San Francisco, plans by J. Dewey Harnish, 212 E. B St., Ontario, 75 trailer family units, utilities, Calif. 4047.

Conn., East Hartford (br. Hartford)—[illegible] Educ., Town Hall, school addns. $175,0[illegible] Applied for **FWA** funds.

★†**Conn., Stratford**—United Aircraft Corp., Chance Vought Div., 400 Main St., East Hartford, brick, steel plant extens., equip. $800,000. Defense Plant Corp. [illegible] finan. Albert Kahn Associated Architects & Engineers, 345 New Center Bldg., Detroit, Mich., engrs.

†**Fla., Panama City**—City, City Hall, bed hospital, $480,000. **FWA.**

†**Ill., Danville**—Hegeler Zinc Co., Danville, plant facilities, $75,000. Defense Plant Corp. will finance.

★†**Maryland**—Veterans Admin., Vermont Ave. between H and I Sts., N.W., Wash. 25, D. C., T. B. hospital in western part of state, $1,500,000.

Mo., Centralia—City, c/o A. B. Chanchn. Hospital Planning Com., Central rein.-con., brick, stone, steel hospital, 45 health center on 7 acre tract. $150,0[illegible] incl. equip. Plans application to FWA.

†**Mo., Ferguson**—School Dist. of Mo[illegible] St. Louis Co., M. Thomas, supt., Chamb[illegible] Rd. and Mayfair Dr., plans by Abbi[illegible] Mackey, c/o Washington University, Ski[illegible]ker and Forsythe Blvds., St. Louis, 4-room school addn., Chambers Rd. and Mayfair Dr. $67,000. $25,000 bonds voted. **FWA.**

★†**Mo., Kansas City**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., bids soon 500 bed hospital on 48 acre site, Linwood Blvd. $3,410,330.

†**Mo., Rock Hill (br. St. Louis)**—Rock Hill School Dist., St. Louis, Zone 5, 3-room school addn. **FWA.** CD 7/31—ENR 8/3.

Neb., Norfolk—State Bd. Control, R. Cochn., Lincoln, ward bldg. at State Hospital, $200,000.

★†**N. Y., Camp Upton (br. Riverhead)**—U. S. Eng., 120 Wall St., New York, Zone 5. Convalescent Hospital addns., alteration, $1,752,000.

★†**N. Y., West Point**—U. S. Eng., 120 Wall St., New York, Zone 7, Field Artillery training bldg., Signal Detachment Materiel and Training Bldg., at U. S. Military Academy. $886,000.

★†**N. Y., West Point**—U. S. Eng., 120 Wall St., New York, Zone 5, bids soon power plant imprvs. $500,000. Charles T. Main, Inc., 201 Devonshire St., Boston, Mass., engr.

★**O., Mount Vernon**—State, Columbus, plans by State Architects, Columbus. 2 units, 1 housing 75 female and other 75 male tubercular mentally-ill patients. $900,000. CD 7/1/43—ENR 7/8/43, under Postwar Projects.

O., Tipp City—M. E. Grafton, mayor, installing new 1500 kva. turbo-generator municipal power plant. $110,000 appropriated.

†**Okla., Chickasha**—U. S. Eng., 231 W. Main St., Denison, Tex., hearing clinic bldg. Ser. 54-006-45-51. $150,000.

†**Ore., Albany**—School Bd., Albany, nurses school, Ore. 35-183-F. $15,000. **FWA.**

†**Ore., Portland**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., veterans hospital addns. at Sam Jackson Park.

★†**Pa., Phila.**—Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., 840-bed hospital, $4,200,000.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, 70x146 ft., masonry type, radio photo and woodworking shop bldg., Ser. No. W-41-154-45-171. $60,000.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort Sam Houston, 34x264 ft., masonry type automotive shop bldg., all outside utilities, Ser. No. W-41-154-45-172. $50,000.

Tex., Lubbock—City, O. W. Ribble, mayor, power plant. $40,000.

†**Va., Norfolk**—Federal Works Agency, Lemon Bldg., 1729 New York Ave., Wash. 25, D. C., bids soon school. Va. 44436. J. H. Walford, 109 E. Cary St., Richmond, archt.

†**Wash., Bremerton**—School Dist., Bremerton, plans by Naramore & Bra[illegible] Dexter Horton Bldg., 2 and Cherry Sts., Seattle, Zone 4, 1 room, partially-enclosed playsheds at East Bremerton, Lule Haddon, West Park and Navy Yard City Schools. Wash. 45326-F. $50,000. **FWA.**

Wash., Camas—School Bd., Camas, plans by D. J. Stewart, Central Blvd., Vancouver, brick, concrete school. $150,000. Seeking FWA funds.

BIDS ASKED

Bids Asked June 14

Conn., New Canaan—New Canaan Country School, Pomus Ridge, school alterations, addns. $75,000. Moore & Hutchins, 11 E. 44 St., New York 17, N. Y., archts.

†**Ind., Gary**—Bd. School Trustees, C. P. Lutz, supt., 524 Garfield St., 3 story, brick, concrete, steel Roosevelt High School addn. Ind. 12-226. $300,000. **FWA.** J. H. Wilder-muth, 527 Broadway, archt. CD 5/24—ENR 5/31.

Bids Asked About June 15

†**Calif., San Diego**—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. 25, D. C., Crown Point School, Calif. 4-650-2. S. W. Hamilton, 1123 Bank of America Bldg., archt. CD 5/[illegible]—ENR 5/31.

UBLIC BLDS. (Bids Asked, Cont'd.)

N. C., Raleigh—State Hospital, R. Pierce, n. mgr., Raleigh, altering R-S-T Ward dg. and X-Ward Bldg. $150,000. Bids 22 rejected. Northrup & O'Brien, Winston lem, archts. CD 5/15—ENR 5/17.

†**Wash., Pasco**—School Bd., Pasco, 2 story, n.-con., masonry classroom addn. to high hool, Wash. 45319-N. $30,500. Plans de- sit $15. G. A. Pehrson, Old National Bank dg., Spokane, archt. CD 5/23—ENR 5/31.

Bids Asked June 18

Que., Pointe Claire—Dpt. Veterans Affairs, nfederation Bldg., 1253 McGill College Ave., ontreal, 40 houses, on Lot 108-109. $180,000. ans deposit $25. CD 3/1—ENR 3/15.

Bids Asked June 19

Calif., Taft and Coalinga—State Div. Archi- ecture, P. Wks. Bldg., Sacramento, 2 resi- nces at Taft and 2 at Coalinga, each 1 ory, wood frame, stucco, for Division Oil Gas Dpt. Natural Resources, for State, Wks. Bldg., Sacramento. Anson Boyd, Wks. Bldg., Sacramento, state archt.

O., Shelby—City, F. C. Long, dir. P. Serv., ecting, installing steam generating unit, nsisting steam boiler, steam heater, super- eater, etc. at municipal light plant. $275,- . J. P. Atkins, city Bldg., city engr. CD 4—ENR 5/17.

†**Ore., Roseburg** — Pub. Housing Auth., HA, Skinner Bldg., 5 Ave. and Union Sts., eattle 1, Wash., 60 family dwelling units, re. $5300. $120,000. V. E. Bailey, 711 S.W. olumbia St., Portland, archt. CD 5/8— NR 5/10.

Bids Asked June 25

La., Baton Rouge—Louisiana State Univer- ty, Purchasing Dpt., B. R. Risinger, purch. gt., Baton Rouge, food preservation bldg., campus.

La., Lake Charles—State University, Pur- asing Dpt., B. R. Risinger, purch. agt., gricultural bldg. and related equip. for John cNeese Junior College of Louisiana State niversity.

Bids Asked About July 2

Tex., Palacios—City, J. L. Deutsch, mayor, story, 70x180 ft., steel, ironclad rein.-con. uick freeze plant, incl. 15 ton ice plant, 0 ton quick freeze plant. $150,000. Plans eposit $20. Garrett Engineering Co., 1805 illam St., Houston engr. CD 4/4—ENR 4/12.

Bids Asked

†**Tex., Fort Sam Houston**—U. S. Eng., Fort am Houston, conversion and deferred main- enance 19 permanent brick army bldgs., er. No. W-410154-45-160. Over $150,000.

OW BIDDERS

Ala., Mobile—City, May 24, remodeling hospital, from Algernon Blair, 1st Natl. ank Bldg. **$809,000.** CD 5/2—ENR 5/10.

†**Calif., Albany**—Pub. Housing Auth., NHA, 60 Market St., San Francisco, 110 tempor- ry family dwelling units, at Berkeley, alif. 4032-N, from Newsom & Bechtel, 2287 elegraph Ave., Berkeley. **$214,498.** CD /16.

†**Calif., San Francisco**—Pub. Housing Auth., NHA, 760 Market St., 146 family war dwell- g units, Calif. 4073-N, from Moore & Rob- rts, 693 Mission St. **$297,738.** CD 5/15— NR 5/17.

Ky., Ashland—Dpt. Hys., Frankfort, May 8, garage, heating plant, appurtenances, oyd Co., from Neighborgall & Leach, Inc., Huntington, W. Va., **$77,656.** CD 5/14—ENR /17.

†**Md., White Oak**—Yards & Docks, Navy Dpt., 18 st. and Constitution Ave. N.W., Wash. 25, D. C., June 1, explosive laboratory, Naval Ordnance Laboratory NOY 12337, from Charles H. Tompkins Co., 907 16 St. N.W., Wash., D. C., **$739,300.** CD 5/24.

†**Mass., Camp Edwards**—U. S. Eng., 31 St. ames Ave., Boston, Zone 16, hospital bldgs., acilities, Spec. 19-023-45-Neg-142, from ohn Bowen Co., 129 Newbury St., Boston, **184,146.**

†**Mich., Dearborn**—Veterans Admin., Ver- mont Ave., bet. H and I Ststs., Wash. D. C., ay 29, buildings, utilities from Kuhne- immons Co., 502 Salliote Ecorse, Detroit, **357,400.** CD 4/25—ENR 5/3.

†**Tex., Fort Sam Houston**—U. S. Eng., Fort am Houston, May 28, conversion Barrack ldg. 277 (Annex 4), to general hospital, pec. W-41-154-45-137, from Walsh & Burney o., 928 N. Flores St., San Antonio, **$404,044.** D 5/10—ENR 5/17.

†**Wis., Waukesha**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., May 18, housing, Wis. 47-096 and Wis. 47-097, from Benjamin Chemers Co., 111 W. Wash- ington St., Chicago, Ill. **$326,148.** CD 4/25— NR 5/3.

†**Alaska, Anchorage**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union Sts., Seattle 1, Wash., May 29, 40 family housing nits, Alaska 50084, from Morrison-Knudsen o., Inc., 319 Bway., Boise, Idaho, **$286,500.** D 5/21.

†**Alaska, Healy** — Alaska Railroad, Dpt. nterior, Anchorage, May 21, 2 story depot, otel, residences and power plant, from C. F. Lytle Co., Green Constr. Co., and A. F. Mathis, Fairbanks. **$379,315.** Est. $350,800. D 5/15.

CONTRACTS AWARDED

†**Calif., Alameda**—U. S. Eng., 74 New Montgomery St., San Francisco, Zone 19, site preparations, fdn. for office bldg. and boiler house at Alameda Intransit Depot, Spec. 2134-1, to Macco Constr. Co., Freight and Ferry Sts., Oakland, **$77,071.**

†**Calif., Oceanside**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., homoja housing development, NOY 11097, and NOY 11098, to Haddock Engineers, Ltd., P.O. Box 479.

†**Calif., Richmond**—Pub. Bldgs. Admin., Box 772, 2223 Fulton St., Berkeley, plans by Narbett, Reynolds & Chamberlain, 536 Bway., Oakland, 8 classroom to Harbor Gate School, Calif. 4-596-F. **$49,500. FWA.**

★†**D. C., Anacostia**—Pub. Housing Auth., NHA, Longfellow Bldg., 1201 Connecticut Ave. N.W., Wash., Zone 25, 300 permanent family dwelling units Stanton Rd. and Alabama Ave., D. C., 1-6, to Haris Constr. Corp., 26 Court St., Brooklyn, N. Y., **$1,470,500.** Bids 5/1, awarded 5/28. CD 5/3—ENR 5/10, under LB.

Minn., Litchfield—City, R. S. Swanson, clk., City Hall, furnishing, installing 3,000 kw turbine, condenser, new steam general unit in municipal power plant, bldg. alterations, to Worthington Pump & Machinery Corp., 2428 University Ave., St. Paul, **$78,063.** Bids 5/21 CD 5/16.

†**Miss., Stoneville**—Div. Purchase, Sales & Traffic, Dpt. Agriculture, 14 St. and Independence Ave. S.W., Wash. 25, D. C., laboratory at Cotton Ginning Laboratory, Inv. 621, to Fred R. Comb. Co., 2113 Chicago Ave., Minneapolis, Minn., **$44,649.** Bids 5/15.

Wash., Tacoma—City, City Hall, power distr. substation with 4 mi. transmission lines, own forces. **$62,000.** CD 2/27—ENR 3/1.

†**N. M., Fort Wingate**—U. S. Eng., Albuquerque, addnl. storage bldg., to C. H. Leavell Co., El Paso. **$294,823.** Est. $275,000.

★†**N. C., Camp Davis**—U. S. Eng., Post Office Bldg., Savannah, Ga., 4 mess halls, etc., to J. A. Jones Constr. Co., 209 W. 4 St., Charlotte. **$448,169.** Bids 5/16***redistribution station, facilities, Areas 1 and 4 to W. A. Foster Co., Burlington. **$245,464*****Area 2, to Thompson & Street, N. Pineville Rd., Charlotte. **$114,471*****Area 3, to J. A. Jones Constr. Co., 209 W. 4 St., Charlotte. **$65,840.** Bids 5/21. Grand total $873,934.

†**Pa., Evansburg (mail Collegeville)**—Superior Tube Co., Evansburg, electronic sleve and tube plant, to Mahony-Troast Constr. Co., 657 Main Ave., Passaic, N. J., approx. **$470,000** incl. equip. Awarded 5/24. Defense Plant Corp. will finance.

†**Tex., Orange**—Pub. Housing Auth., NHA, 1411 Electric Bldg., Seventh and Lamar Sts., Fort Worth, Zone 2, drainage work, open ditching, etc., to R. P. Farnsworth Co., P. O. Box 74, Houston, approx. **$15,000.**

★†**Tex., Seagraves** — Columbian Carbon Corp., 41 E. 42 St., New York, N. Y., carbon black plant, to Fluor Co., Old Ry. Exchange Bldg., Kansas City, Mo., approx. **$1,500,000.** Defense Plant Corp. will finance. CD 3/28—ENR 4/5.

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Salinas—Franciscan Hotel, Salinas, D. Franci, owner, 8 story hotel.

Calif., Santa Clara—Pasetta Constr. Co., 2390 Park Ave., 50 residences, southeastern sect. of city. $250,000.

Calif., Santa Clara—A. J. Peters & Son and Carl N. Swenson Co., 355 Stockton Ave., San Jose, 65 residences in 17 acre subdivision. $325,000.

Colo., Denver—P. G. Dikeou, 178 Ash St., plans by T. H. Buell & Co., 730 14 St., 1 story, 87x125 ft., brick, concrete, steel theatre. $250,000.

Conn., New Haven—Jewish Center of New Haven, Inc., 1158 Chapel St., 4 story, brick, steel Jewish Center, incl. gymnasium, club rooms, swimming pool, auditorium, Chapel St. $350,000.

★**Ill., Chicago**—Ravenswood Hospital, 1917 W. Wilson Ave., plans by Schmidt, Garden & Erikson, 104 S. Michigan Ave., 5 story, brick, concrete, steel hospital addn. $750,000.

Mass., Cambridge—Cambridge Community Center, Inc., 49 Harvard St., sketches by R. Reid, 30 Bowdoin St., community center. $150,000. Campaigning for funds.

Mass., Newburyport—Immaculate Conception Church, Rev. James J. Mooney, pastor, 7 Court St., brick, concrete high and grammar school. To exceed $150,000. Campaigning for funds.

Pa., Pittsburgh—Lane Bryant, Inc., A. Newman, chg., 461 5 Ave., New York, N. Y., 6 story, bsmnt. store and office alterations. $250,000.

Pa., Pittsburgh—Sacred Heart Roman Catholic Parish, Rev. T. F. Coakley, pastor, Emerson St., plans by Kaiser, Neal & Reed, 801 Keystone Blvd., 3 story, bsmnt., 65x300 ft., brick, stone, tile school and convent. $400,000. F. J. Firsching, 1007 Empire Bldg., mech. engr.

Pa., West Chester—Owner, c/o R. Minich, archt., 342 W. Miner St., plans completed 50 suite apartment house. $200,000.

Wis., West Bend—St. Joseph's Hospital, West Bend, soon lets contract 4 story, bsmnt., 65x66 ft., 45x115 ft., irregular sized, 1 story, 26x51 ft. and 1 story, 30x14 ft., brick, steel, tile, stone, concrete hospital addns., concrete fdns. $400,000. E. Breilmaier & Sons Co., 735 N. Water St., Milwaukee, Zone 2, archts.

BIDS ASKED

Minn., Minneapolis — Edgewater Beach Bldg. Corp., H. S. Goldie, secy., West Lake St. at Dean Blvd., completing club bldg. being remodeled into 114 two and 3 room apartments. $150,000. E. B. Croft, at site, archt.

CONTRACTS AWARDED

★**Calif., South Pasadena**—P. Truesdale, 10,780 W. Pico Blvd., Los Angeles, 44 four-unit frame, stucco apartments, Raymond Hill. Owner builds. **$500,000.**

Tex., Austin—United Fidelity Life Insurance Co., T & P Bldg., Dallas, 3 story, 71 x 94 ft., brick, concrete, steel apartment hotel, to Cedric Burgher Const. Co., 3027 Main St., Dallas, **$150,000.** CD 5/31.

Wash., Tacoma—March Constr. Co., 780 Commerce St., 55 houses with air conditioning furnaces, 18 and Cedar Sts., day labor. **$355,500.**

★**Man., Fort Garry (Postal Dist. Winnipeg)**—Bird Const. Co. Ltd., 708 Confederation Life Bldg., Winnipeg, 333 houses on Red River. Owner builds. **$3,000,000.** Green, Blankstein, Russell Ham, 310 Time Bldg., Winnipeg, archt.

INDUSTRIAL BUILDINGS

PROPOSED WORK

★**Calif., South Gate**—FACTORY—General Motors Corp. (Southern California Div.) 2700 Tweedy Blvd., reconstructing South Gate Plant. $1,264,000. CD 12/28—ENR 1/4.

Calif., Visalia — PLANT — Visalia Citrus Assn., c/o J. T. Crowe, Jacob Bldg., citrus packing plant. $40,000.

Conn., Bridgeport — WAREHOUSE — S. Gladstein Hardware Co., 2808 Fairfield Ave., 2 story, bsmnt., 50 x 100 ft., brick, concrete warehouse, Brewster St. $45,000.

Conn., Manchester—PLANT—C. V. Hansen, 15 H. Forest St., plans by Kane & Fairchild, 49 Pearl St., Hartford, 1 story, bsmnt., 45 x 100 ft., brick, steel, quick freezer plant, individual lockers sys. Main St., $40,000.

Conn., South Norwalk—FACTORY—Remington Rand Co., 1 Main St., Bridgeport, preparing plans 4 story, 60x200 ft. rein.-con., brick, steel, factory and office bldg., Meadow St. $175,000. Fletcher Thompson, Inc., 211 State St., Bridgeport, engr.

Conn., Thompsonville—BUS TERMINAL—White Circle Bus Co., c/o E. P. Dorgan, archt., 833 Chestnut St., Springfield, Mass., plans nearing completion 1 story, 50 x 80 ft., 40 x 50 ft., steel, concrete maintenance garage bus terminal.

★**Ill., Barrington**—LABORATORY—Pure Oil Co., 35 E. Wacker Dr., Chicago, brick, concrete, steel experimental laboratory. $1,000,000.

Ill., Chicago—FACTORY—Fort Wayne Corrugated Paper Co., 4500 S. Kolin Ave., soon lets contract 1 and 2 story, 160x300 ft., brick, concrete, steel factory addn. $150,000. A. Epstein, 2001 W. Pershing Rd., engr. CD 4/19—ENR 4/20.

Ill., Herrin — FACTORY — Borg-Warner Corp., H. E. Blood, pres., 9664 E. Jefferson St., Detroit, Mich., factory. Over $100,000, incl. equip.

★**Ill., Meredosia**—POWER PLANT, etc.—Central Illinois Public Service Co., 607 E. Adams St., Springfield, 50,000 kw. power plant incl. necessary turbine and auxiliary equip. and 138,000 volt transmission line connecting new station with present plant at Hutsonville, $10,000,000.

Ind., Indianapolis—PLANT—Link Belt Co., 220 S. Belmont St., plans by D. A. Bohlen & Son, 930 State Life Bldg., 1 story, 120x812 ft. and 3 story, 80x260 ft., brick, rein.-con., structural steel glass block mfg. plant addn. $300,000.

Ia., Sioux City—PLANT—A. A. Nixon & Co., J. A. Nixon, pres., 2619 N St., Omaha, Neb., concrete, masonry plant for stock feed. $97,000.

Ia., Wellman — HATCHERY — Maplecrest Turkey Farms, Wellman, plans hatchery, laboratory and office. $65,000. Howard R. Green Co., 208-210 Bever Bldg., Cedar Rapids, engrs.

La., Lake Arthur—PLANT—F. J. Scoggins, Lake Arthur, plans by Stone Bros., Carondelet Bldg., New Orleans, 1 story, 28x64 ft. ice plant.

Me., Richmond — PLANT — Sykes Transportation Co., S. Front St., soon lets contract 1 story, 50x75 ft., brick, concrete plant. $40,000. Bunker & Savage, 256 Water St., Augusta, archts.

Md., Baltimore—BOTTLING HOUSE—National Brewing Co., Conkling and O'Donnell Sts., soon lets contract 1 story, bsmnt., mez-

INDUSTRIAL BLDGS. (Proposed Work, Cont'd.) zanine floor, 145x160 ft. bottling house addn., concrete fdns. $250,000. Wm. F. Koelle & Son, 26 and Oxford Sts., Phila., Pa., engrs.-archts.

Md., Thurmont—FACTORY, etc.—Cannon Shoe Co., McSherrytown, plans by C. S. Buchart, York shoe factory and boiler house. $50,000.

Mass., Brighton (sta. Boston)—GARAGE—Diamond Sales & Service Corp., 10 Glenville Terrace, Allston, plans by Perry, Shaw & Hepburn, Park Square Bldg., Boston, 1 story, 75 x 220 ft., concrete, brick garage. $40,000.

Mass., Danvers—WAREHOUSE, etc.—I. Doherty, Maple St., plans completed by W. H. Hunt & Son, 237 Locust St., rebuilding 2 story, bsmnt., 80 x 70 ft. warehouse and store. $40,000.

Mass., Gardner—FACTORY—Simplex Time Recorder Co., 26 S. Lincoln St., completing plans by S. G. Kendall, 32 Pleasant St., 1 story, brick, steel factory. $40,000.

Mass., Malden—BUS GARAGE—Warwick Coach Lines, Inc., 1000 Main St., plans by C. F. Springall, 50 Park St., 1 story, 90x120 ft., concrete, brick, steel bus garage, Washington St. To exceed $50,000.

Mass., Mansfield—PLANT—H and C Laboratories, 500 School St., chemical plant. To exceed $40,000.

Mich., St. Joe—FACTORY, etc.—Graham, Anderson, Probst & White, archts., 80 E. Jackson Blvd., Chicago, Ill., soon lets contract, 2 story, 204x269 ft., brick, concrete, steel storage factory and boiler plant, for 1900 Corp., St. Joe.

Minn., St. Paul—POWER PLANT BOILER, etc.—C. T. Miller Hospital, Dr. P. D. Ward, supt., 125 West College Ave., soon lets contract furnishing, installing boiler, stoker and piping for power plant. $40,000. Plans deposit $10. C. H. Johnston, 715 Empire Bank Bldg., engr. CD 5/9—ENR 5/17.

N. J., Gibbsboro — WAREHOUSE — John Lucas Co., Gibbsboro, plans by R. B. Bencker, 1601 Chestnut St., Phila., Pa., warehouse. $100,000. W. R. Sauter, 1700 Walnut St., Phila., Pa., engr.

N. Y., Utica—SHOP ALTERATIONS, etc.—New York Central System, S. E. Armstrong, ch. engr., 466 Lexington Ave., New York, Zone 17, soon lets contract shop alterations, cafeteria, housing facilities.

N. Y., Westfield——PLANT—Brown & Book, Inc., W. Book, pres., Westfield, rebuilding canning plant. $40,000-$50,000.

N. C., Belmont—MILL—Belmont Hosiery Mill, Belmont, soon lets contract hosiery mill. H. V. Biberstein, 1600 Elizabeth Ave., Charlotte, engr.

O., Sandusky—PLANT—Lake Erie Canning Co., G. Wenger, secy.-treas., Sandusky, canning plant, incl. factory, warehouse. $40,000 or more.

Ore., Portland—FACTORY—O. J. Lougheed & Son, 303 E. Union Ave., 1 story, 100 x 200 ft., brick, frame saw mfg. plant, 60 and N.E. Lombard Sts. $45,000. Chet Spiering & Associates, Corbett Bldg., engrs. CD 5/23—ENR 5/31.

Ore., Salem—COLD STORAGE—Gabriel Cold Storage Co., W. C. Gabriel, 1095 N. Church St., plans by J. W. De Young, 730 S.W. Salmon St., Portland, 107x110 ft. and 55x55 ft., cold storage plant, tile, frame. $50,000.

Ore., Springfield—PLANT—Guerrier Lumber Co., Springfield, 40 x 236 ft. fir veneer plant. $73,058.

Ore., Sweet Home—SAWMILL—Santiam Lumber Co., Sweet Home, reconstructing sawmill. $205,000.

Pa., Corry—PLANT—Raymond Mfg. Co., E. W. Felot, genl. mgr., plans nearing completion by Meyers & Johnson, Commonwealth Bldg., Erie, 3 story, bsmnt., 65x125 ft., brick, steel mfg. plant exten. $300,000.

Pa., Du Bois—PLANT—DuBois Frozen Products Co., G. Laupheimer, owner, Box 64, Du Bois, bids soon 1 story, 80x100 ft., frozen foods storage plant, etc., brick. $40,000.

Pa., Emlenton—BOILER PLANT—Quaker State Oil Refining Co., Sterling Oil Div., G. B. Hunter, genl. mgr., Emlenton ,boiler plant alterations. $135,000 incl. equip.

Pa., Monaca—PLANT—Richmond Radiator, Pittsburgh Rd., Uniontown, preparing plans, rehabilitating, general repairs 1 story, brick, frame, steel plant, installing new equip. in mill room and foundry, power piping, low pressure piping, repairing sprinkler sys. $250,000, incl. equip.

Pa., Pittsburgh — FACTORY — Pittsburgh Melting Co., A. C. Collins, pres., Herrs Island, rebuilding 3 story, brick, factory. $100,000.

Pa., Pottsville—BOILER HOUSE—D. G. Yuengling, 5 and Mahontongo Sts., boiler house. $75,000. A. C. Wood, 1411 Walnut St., Phila., engr.

Pa., Warren — SERVICE — Pennsylvania R. R. Co., J. L. Gressitt, ch. engr., Broad St. Station Bldg., 1617 Pennsylvania Blvd., Phila., Zone 4, soon lets contract 2 story, 32x50 ft., brick on hollow tile backing service bldg. at Wardell Yards. $60,000. CD 1/5—ENR 1/11.

R. I., Providence—FACTORY—H. Anderson, 36 Garnet St., soon lets contract 2 story, 45 x 95 ft., brick factory. $40,000. E. Ekman, 1016 Turks Head Bldg., archt.

Tex., Alamo—PLANT—E. J. Farnsworth, Alamo, 1 story, frozen food locker plant, brick, rein.-con. $40,000.

Tex., Edinburg—PLANT—Donna Fruit Co., 622 N. Closner St., 1 and 2 story, vegetable and citrus packing plant, frame, sheet metal. $100,000. CD 4/11—ENR 4/19.

Tex., Fratt (mail Luxello)—PLANTS—Grandma Cookie Co., c/o R. E. Haggard, Fratt, plans by W. N. Noonan, 720 Travis Bldg., San Antonio, rebuilding 1 story, 90 x 409 ft., structural clay tile, rein.-con. plant. F. T. Drought, Frost Bldg., San Antonio, engr.

Tex., Harlingen—STORAGE—Food Machinery Corp., Harlingen, 41 x 102, ft., color unit and storage bldg., tile, concrete fdn., $40,000. B. Cocke, W. V. Bowman, 1220 W. Harrison St., archts.

Tex., Houston—WAREHOUSE—American Rice Growers Co-operative Assn., Butler and SP Ry. tracks, warehouse unit, incl. bins for rice, conveyors and elevators, etc. $70,-000.

Tex., Houston—PLANT—Davis Machine & Instrument Co., 1431 Richmond St., plans by T. G. McHale, 2017 W. Gray St., machine plant. $60,000.

Tex., Houston — PLANT — I. S. Deutser, White House, 502 Travis St., plans by J. Finger, Natl. Standard Bldg., oil field supply mfg. plant. $55,000.

Tex., Houston—FACTORY—South Texas Casket Co., Box 5064, Dallas, plans by J. Corgan, 1325 Mercantile Bank Bldg., Dallas, 1 story, 80x180 ft., concrete, steel factory. $40,000.

Tex., San Antonio — PLANT — Standard Electric Co., Inc., 115 San Pedro St., reconstructing battery mfg. plant and storage at Fratt, 6 mi. north of here. $40,000.

Wash., Hoquiam—PLANT—Rayonier, Inc., White Bldg., 4 and Union Sts., Seattle, Zone 4, pulp plant addns., alterations. $45,000.

Wis., Wausau—FACTORY—Marathon Electric Mfg. Co., Wausau, plans by Oppenhamer & Obel, Wausau, 1 story, 100x120 ft., and 1 story, 120x300 ft., steel, rein.-con., brick factory addn.

Alta., Edmonton—PLANT—Taylor & Pearson Ltd., 10215 103 St., plant addn., installing equip. $50,000.

Alta., Magrath — PLANT — Golden Fleece Woolen Mills, Magrath, plant addn. $40,000.

B. C., Victoria—PLANT—B. C. Electric Rly. Co. Ltd., 1016 Langley St., A. C. Eddy, ch. engr., 425 Carrall St., Vancouver, gas mfg. plant addn. Over $100,000. W. H. Dreaper, 1016 Langley St., supt. Gas Dpt.

Man., Flin Flon—DIAMOND DRILLING—Nesnah Mining & Exploration Ct. Ltd., 320 Bay St., Toronto, Ont., 10,000 ft. diamond drillings, etc. $65,000.

Man., Winnipeg—PLANT—Western Canada Bronze Co., 595 Clifton St., preparing plans plant addn. $50,000.

Man., Winnipeg—TERMINAL STATION—Winnipeg Electric Co., 303 Electric Railway Chambers, altering terminal station, installing equip. $144,000.

N. S., Windsor Junction—FACTORY—A & S. Stephen (Nova Scotia Bedding Co. Reg'd.), Windsor Junction, factory. $40,000.

Ont., Bradford — PLANT — Bradford Co-Operative Storage, Ltd., G. Semouk, secy., Bradford, preparing plans 3 story, 90 x 130 ft., refrigeration plant, rein.-con., concrete cork deck, wood piles, $100,000. S. H. Darling, 36 James St., S. Hamilton, engr. CD 1/15—ENR 1/18.

Ont., Fort Erie—FACTORY—Liquid Veneer Co. of Canada Ltd., Fort Erie, factory. $40,000.

Ont., Fort Williams—PLANT—Hinsberg Harness Co., Ltd., Fort Williams, enlarging plant. $100,000.

Ont., Hamilton—PLANT—V. Brown Metal Industries Ltd., c/o M. B. Goldblatt, Hamilton, plant mfg. and repairing motors, engines boilers, power plant equip., etc. $40,000.

★**Ont., Hamilton**—PLANT—Firestone Tire & Rubber Co. of Canada, Ltd., Beach Rd., plant exten. $1,000,000.

Ont., Hamilton—PLANT—Hamilton Paper Box Co. Ltd., c/o W. W. Cooper, K. C., Hamilton, boxes, etc. mfg. plant. $40,000.

Ont., Hamilton — PLANT — Hoover Co., Ltd., Gage St., plans by Hutton & Lauter, 36 James St. S., 1 story, rein.-con., brick, stone, structural steel, plant addn., Gage St. N. $60,000.

Ont., Kaladar—PLANING MILL—Kaladar Planing Mills, Ltd., Kaladar, planing mill, etc. $40,000.

Ont., Kearns—MINING—Hexagon Mining Syndicate, Ltd., c/o G. D. O'Meara, K.C., Kirkland Lake, mining development. $40,-000.

★**Ont., Toronto**—PLANT—Dominion Malting Co. Ltd., 320 Bay St., 600,000 bu. storage bldg., increasing malting cap. $1,000-000.

Ont., Toronto—PLANT—Maxwell Paper Box Co. Ltd., 170 Berkeley St., plans by N. A. Armstrong, 19 Melinda St., 2 story, bsmnt., 80x170 ft. paper box mfg. plant, brick, Blake St. $100,000. CD 3/21—ENR 4/5.

Ont., Toronto—PLANT—Nash Pant Mfg. Co. Ltd., c/o D. B. Goodman, Federal Bldg., pants, children wear, etc. mfg. plant. $40,000.

Ont., Toronto—PLANT—Precision Bearing Co. Ltd., c/o G. H. Shaver, K. C., 320 Bay St., machinery and equip. mfg. plant. $40,-000.

Ont., Toronto—PLANT—Stecco Chemicals Ltd., c/o R. C. Paynter, 276 Lauder St., chemical and compounds, etc. mfg. plant. $40,000.

★**Que., St. Johns**—PLANT—Singer Mfg. Co. Ltd., 165 St. Paul St., sketches plant extens. $4,000,000. T. Pringle & Son, Ltd., 485 McGill St., Montreal, engr.

BIDS ASKED

Bids Asked June 12

N. C., Wilson—PLANT—Newhoff, Inc., Salem, Va., meat packing plant. Over $40,-000. CD 3/21—ENR 3/29.

Bids Asked June 14

Mass., West Sppringfield—TERMINAL—Associated Transport, Inc., 325 Memorial Ave., rein.-con. terminal addn. $40,000. A. J. Carson, 325 Memorial Ave., archt. CD 5/7—ENR 5/10.

Bids Asked About June 15

Mo., St. Louis—FACTORY—Stout Sign Co., 2300 Olive St., Zone 3, 1 story, 150 x 300 ft., brick, steel, concrete factory, 1 story, 60 x 180 ft. office bldg., 6400 block of W. Florissant Ave. Over $40,000 with equip. H. K. Graf, 2825 Olive St., Zone 3, archt.

Bids Asked in July

Conn., New London—GARAGE—Cushman Burke Motors, Inc., c/o F. S. Langdon, archt., 325 State St., 1 story, 30 x 100 ft., 57 x 125 ft., brick, steel, cinder block garage-showrooms. $45,000. CD 4/16—ENR 4/19.

Bids Asked

Conn., Hartford — GARAGE — M. & S. Trucking Co., 388 Wethersfield Ave., 1 story, 65 x 180 ft., brick, steel, cinder block truck garage, Wethersfield Ave. $40,000. J. Berenson, 48 Forest St., archt.

N. J., Vineland—PLANT—Times Journal, 1 S. 7 st., newspaper plant. $50,000. I. Demchick & Supowitz, 246 S. 15 St., Phila., Pa., archt.

Pa., Phila.—PLANT—Il Popolo Italiano, 1017 S. 8 St., newspaper plant. $40,000 or more, L. A. Manfredi, 2228 Mifflin St., archt.

Pa., Phila.—PLANT—Smith, Bruhaker & Egan, archts., 30 N. LaSalle St., Chicago, Ill., altering smokehouse, for William Moland Sons, 152 Laurel St., $75,000-$100,000. CD 5/14—ENR 5/17.

LOW BIDDERS

Calif., Winters—WAREHOUSE—Office of Harry J. Devine, archt., Cronan Bldg., Sacramento, May 29, 1 story, bsmnt., fruit packing warehouse, for California Fruit Exchange, 40 and N Sts., Sacramento, from C. F. Unger, 2426 7 Ave., Sacramento, $32,-400.

La., Baton Rouge—PLANT BLDG.—Borman & Murrell, archts., Reymond Bldg., May 22 2 story, 80 x 158 ft., concrete, brick cafeteria bldg., for Ethyl Plant, North Baton Rouge, for Standard Oil Co., Ethyl Plant, North Baton Rouge, from Perrilliat-Rickey Const. Co., S. Rendon and Eve Sts., New Orleans, $203,674. CD 5/15—ENR 5/17.

CONTRACTS AWARDED

Ariz., Phoenix — FACTORY — AiResearch Mfg. Co., 9851 Sepulveda Blvd., Los Angeles, Calif., steel frame, steel sash factory addn., to Buttress & McClellan, 1013 E. 8 St., Los Angeles, Calif., approx. $50,000. J. H. MacDonald, 1013 E. 8 St., Los Angeles, Calif., archt.

Ariz., Phoenix—COLD STORAGE—Mission Foods, Inc., Phoenix, 80 x 150 ft., rein.-con. cold storage bldg., to Buttress & McClellan, 1013 E. 8 St., Los Angeles, Calif., $75,000. J. H. MacDonald, 1013 E. 8 St., Los Angeles, Calif., archt.

California—PLANT—West Side Cooperative Drier, c/o G. K. Schrader, 1189 Park Ave., San Jose, 12 tunnel dehydration plant in Butchers Corners Dist., Santa Clara Co. Owner builds. $100,000.

Calif., Campbell—PLANT—Campbell Cooperative Drier, G. K. Schrader, mgr., 1189 Park Ave., San Jose, 12 tunnel dehydration plant. Owner builds. $100,000.

Calif., Los Angeles — FACTORY — AiResearch Mfg. Co., 9351 Sepulveda Blvd. 20 x 60 ft., and 40 x 380 ft., each 1 story, and 2 story, 20 x 130 ft., steel frame factory addns., Mires Field, to Buttress & McClellan, 1013 E. 8 St., approx. $150,000. J. H. MacDonald, 1013 E. 8 St., archt.

Calif., Los Angeles — GARAGE — Calif. Truck Rental Co., 617 S. Central Ave., 1 story, reinforced brick, cement truck garage, 940 E. 6 St., to Myers Bros., 3407 San Fernando Rd., approx. $40,000. G. Fosdyke, 112 N. Main St., engr.

Calif., Los Angeles—PRINT SHOP—Ulrich Plant, 2700 Maple Ave., industrial print

NDUSTRIAL BLDGS. (Contracts Awarded Cont'd.)

hop, 1223 Rio Vista Ave. Owner builds. $0,000.

Conn., West Haven (br. New Haven)—ACTORY—New England Die Casting Co., 4 Grant St., 1 story, 50 x 200 ft., brick, teel, cinder block factory, Front St., to Marlaco, Inc., 164 Linden St., New Haven. st. **$40,000.** CD 5/16—ENR 5/24.

Ill., Chicago — **PLANT BLDG.** — Dodge hicago Plant, Div. Chrysler Corp., 7401 S. icero St., 1 story brick, concrete, steel low cooling bldg., to Campbell-Lowrie-autermilch, 400 W. Madison St., **$100,000.** ilbert Kahn Associated Architects & Engi-eer, Inc., **345 New Center Bldg., Detroit,** ich., archts.

Ill., Chicago — FACTORY — Modern Die asting Co., 430 E. Green St., 1 story, 65 x 20 ft., brick factory, 4941 N. Cicero Ave., eparate contracts. S. Klefstad, 3600 W. ullerton, archt.

Ind., Fort Wayne—PLANT—Centlivre rewing Co., 2501 Spy Run, 2 story grain-rying plant, brick, to Max Irmsher & Sons, nc., 1113 Old-First Bank, **$42,000.** Awarded /24.

Mass., Everett (br. Boston)—PLANT—eneral Steel Products Co., 48 Auburn St., helsea, 1 story, 65 x 150 ft., brick, steel, oncrete plant, 2 St., to T. Cavanagh, 1160 ommonwealth Ave., Boston. Est. **$40,000.** . S. Eisenberg, 69 Summer St., Boston, rcht.

Mass., Indian Orchard—FACTORY—Mon-anto Chemical Co., **704 Monsanto Ave., fac-ory addn., west end of Resinox Unit, Mon-anto Ave., to J. G. Roy & Sons Co., 21 Silver t., Springfield, $55,000.** J. R. Worcester & o., 79 Milk St., Boston, engrs.

Mass., Springfield—FACTORY—Standard lectric Time Co., 89 Logan St., 1 story, rick, steel, concrete factory addn., to Ley onstr. Co., 1215 Main St. Est **$45,000.** Bids /12. CD 5/10—ENR 5/17.

Mo., St. Louis—FACTORY—W. L. M. lark, Inc., 1900 St. Louis Ave., Zone 6, 2 tory, 70 x 80 ft. art needle work factory ddn., brick, concrete fdn., 1906-12 St. Louis ve., to J. A. Ditenhafer, 4221 San Fran-isco Ave., Zone 15. Est. **$40,000** or more ith equip. J. E. Tarling, 4114 W. Kossuth ve., Zone 7, archt.

Mo., St. Louis—FOUNDRY, etc.—National earing Metals Corp., 4930 Manchester Ave., one 10, 1 story, 83 x 95 ft., brick, concrete oundry and machine shop addn., 4930 Man-hester Ave., to Smith-Cooke Constr. Co., 829 Easton Ave., Zone 13. Est. **$40,000** ith equip.

Mo., St. Louis—PLANT—Wolf Printing o., 1306 S. Spring Ave., Zone 10, brick, con-rete 2nd floor addn. to printing plant, 1306 . Spring Ave., to John Hill Constr. Co., 15 Olive St., Zone 1. Est. **$75,000.** N. J. ampbell, 911 Locust St., Zone 1, engr.

N. H., Tilton—FACTORY—Gibson Mills, nc., c/o N. H. Randlett, archt., 614 Main t., Laconia, 1 story, brick, concrete factory. wner builds. **$40,000.** CD 5/16—ENR 5/24.

N. J., Camden—SALES and SERVICE—erglund Motor Co., Admiral Wilson Blvd. nd 17 St., auto sales and service bldg., to . John Homan, 446 Haddon Ave., Collings-ood, **$45,000.** F. H. Radey, 101 N. 7 St., rcht.

N. Y., New York—WAREHOUSE—Five Hundred and Twenty-Eight W. 30 St. Realty Corp., 501 W. 30 St., Zone 1, warehouse, 29-39 W. 29 St., to W. F. Babor Co. Inc., 0 E. 45 St., Zone 17. Est. **$75,000.** S. L. trauss, 70 E. 45 St., Zone 17, archt.

N. Y., New York — FACTORY — Rogers iesel & Aircraft Corp., 1120-34 Leggett ve., Zone 59, altering 2 story factory, 1120-4 Leggett Ave., to Davidson Industrial ontg. Co., 1265 Atlantic Ave., Brooklyn, one 16. Est. **$50,000.** Ketzler & Nurick, 66 ourt St., Brooklyn, Zone 2, archts.

N. C., Hickory—COLD STORAGE—W. F. allent, Fresh Air Market, Hickory, cold torage plant, to Elliott Building Co., Hick-ry, approx. **$80,000.**

O., Akron—FACTORY, etc.—Adamson Ma-hine Co., 730 Carroll St., 1 story, 50 x 160 t. factory and office bldg., to Clemmer onst. Co. Inc., 134 E. Thornton St. Est. **$42,000.**

★**O., Barberton** — FACTORY — Pittsburgh Plate Glass Co., A. Mills, in charge, ooster Rd. and 16 St., 2 story, 90 x 160 ft., actory addn., to Carmichael Const. Co., 148 E. Miller Ave. Est. **$550,000** incl. equip. Good & Wagner, 200 Permanent Bldg., archts. F. Erosky, 1676 Edgefield Ave., Hillcrest, Cleveland, engr.

Ore., Dayton—PLANT—Alderman Farms, Dayton, 176 x 232 ft., rein.-con. processing and freezing plant, to Austin Co., 1611 Euclid Ave., Cleveland, O. Est. **$90,000.** CD 5/29.

Ore., Linslaw—SAWMILL—**Austa Lumber** Co., Linslaw, rebuilding sawmill, day labor. **$70,000.** CD 5/16—ENR 5/24.

Ore., Portland — PLANT — Pacific Supply Corp., Chemical Div., 801 S.E. Division Pl., 1 and 2 story, 200 x 200 ft. and 60 x 100 ft., rein.-con. process fertilizer plant, 19 and Upshur Sts., to Reimers & Jolivette, Ry. Exchange Bldg. Est. **$83,877.** CD 5/25—ENR 5/31.

Pa., Coraopolis—PLANT—Standard Steel Spring Co., M. B. Hammond, vice pres., Coraopolis, reconverting auto spring plant, equipment replacement, rearrangement for conversion power piping, minor piping, own forces. **$340,000.**

★**Pa., Lansford**—MINE DEVELOPMENT—Lehigh Navigation Coal Co., Inc., E. Evans, vice pres., 123 S. Broad St., Phila., mine development, coal stripping project, incl. 41 million cu. yd. excav. and grading, to Carey Baxter & Kennedy, 342 Madison Ave., New York, N. Y. Est. **$3,000,000** per year for 10 years. Eavenson Alford & Auchmuty, Koppers Bldg., Pittsburgh, consult. engrs. CD 4/4—ENR 4/12.

Pa., Phila.—SHIPPING—Precision Grinding Wheel Co., Inc., **$301 Torresdale Ave.,** shipping bldg. to Foundations & Excavations Inc., Moorestown, N. J., approx. **$40,000.** Awarded 5/25.

Pa., Wayne—PLANT—Wayne Iron Works, Pembroke Ave. and Lincoln Hy., industrial bldg., to F. H. Wilson, 125 Coulter Ave., Ardmore, **$50,000** or more. P. M. Sax, 1328 Chestnut St., Phila., engr.-archt. Awarded 5/25.

Tex., Houston—SHOP—R. P. Farnsworth & Co., Box 74, 69 x 114 ft., steel corrugated asbestos siding repair shop and garage. Owner builds. **$40,000.** CD 5/7—ENR 5/10.

Tex., Houston—PLANT—Magnolia Seafood Co., 1501 Congress Ave., 1 story, 52 x 102 ft., steel, frame, brick, concrete, hollow tile cold storage plant, 3 cold storage vaults, etc., to **B. W. Holtz, 1318 Sul Ross St., $65,000.** Est. $60,000. CD 5/31.

Tex., McAllen—PLANT—Reagan Canning Co., McAllen, 1 and 2 story, brick, concrete processing plant, force account. **$40,000.** CD 5/25—ENR 5/31.

Tex., Mission—SHOP—Border Foundry & Machine Co., Mirando City, 50 x 150 ft., brick, rein.-con. machine shop, etc., force account. **$40,000.**

Tex., San Antonio—FACTORY—Mission Concrete Pipe Co., 1519 Hoefgen Ave., addnl. factory unit. Owner builds. **$40,000.** CD 3/2—ENR 3/8.

Wash., Bingen—PLANT—Twin Harbors Lumber Co., Bingen, two 75 x 250 ft., production bldgs., 50 x 200 ft. bldg. to house steel treatment tanks, stockroom and boiler house, replacing structures destroyed by fire, day labor. **$75,000.** CD 4/30—ENR 5/3.

★**Wash., Everett**—PLANT—Weyerhaeuser Timber Co., Everett, beach plant addn. with steel beamed roof, day labor. **$587,100.** CD 2/28—ENR 3/8.

Wis., Beloit—FACTORY—Freeman Shoe Co., 300 St. Paul Ave., 2 story, 50 x 100 ft., steel, brick, factory addn., concrete fdn., to Cunningham Bros., 359 E. Grand Ave. W. F. Dolke, 189 W. Madison St., Chicago, Ill., engr.

Wis., Greenfield (P. O. Milwaukee)—FACTORY—Milcor Steel Co., 4133 W. Burnham St., Zone 4, 1 story, 17 x 811 ft., brick, steel, factory addn., concrete fdn., to Gebhard-Berghammer Co., 5420 W. State St., Milwaukee, Zone 8. CD 5/8—ENR 5/20.

Wis., Milwaukee—FACTORY—Nash-Kelvinator Corp., 3880 W. Richards St., Zone 12, factory addn., 5 story, 40 x 146 ft., concrete fdn. and floors, 1 story, 64 x 148 ft., structural steel, 2 story, 25 x 130 ft., brick, and 50 x 130 ft. underpin storage bldg., to Permanent Constr. Co., 4100 W. 3 St., Zone 12. Est. **$209,000.**

Ont., Kitchener — FACTORY — Dominion Rubber Co., Ltd., 149 Strange St., 3 story, 40x50 ft., steel, brick factory addn., Breithoup St., to Dimker Constr. Co., 251 King St. W., about **$85,000.** Prack & Prack, 37 St. James St., Hamilton, archts. CD 3/13—ENR 3/15.

Ont., Leaside (Toronto Postal Dist.) — FACTORY—Curtis Lighting Co. Ltd., 260 Richmond St. W., Toronto, 1 story, 150x280 ft., brick, steel factory, Wickstead Dr., to W. Halliday, 271 Forest Hill Rd., Toronto, about **$150,000.** L. H. Stanford, 7 Burnham Rd., Toronto, archt. CD 5/21—ENR 5/24.

Ont., Weston—PLANT—Moffat's Ltd., 23 Dennison Ave., plant addn., to J. Robert Page, 18 Toronto St., Toronto, about **$85,000.** Prack & Prack, Pigott Bldg., Hamilton, archts. CD 4/30—ENR 5/3.

Que., Lachine (Montreal)—FACTORY—Steel Co. of Canada, Ltd., 525 Dominion St., Montreal, factory alterations, exten., and equip., to Hyde & Miller, Ltd., 1500 Guy St., Montreal, **$69,200.** CD 1/30—ENR 2/1.

UNCLASSIFIED

PROPOSED WORK

★†**Calif., Muroc**—AIRFIELD IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Zone 55, exten. west end of east-west runway, taxiway, warm-up pad, altering night lighting sys., Muroc Army Air Base. $687,500.

Conn., Bridgeport — PIERHEAD, etc. — Buckley Brothers, 80 Seaview Ave., preliminary plans 40x100 ft. pierhead, 20 ft. causeway on pipe bents, 330 ft. dock for oil tankers, Seaview Ave. **$25,000.** Westcott & Mapes, Inc., 139 Orange St., New Haven, engr.

★**Ill., Chicago**—AIRPORT TERMINAL BLDG.—City of Chicago, Dpt. P. Wks., City Hall temporary terminal bldg. for airport, Cicero Ave. between 55 and 59 Sts. $700,000. Foundations to be done by city labor. P. Gerhardt, Jr., City Hall, city archt. CD 7/26—ENR 3/3.

★†**La., Barksdale Field (br. Shreveport)**—AIRFIELD PARKING APRON—U. S. Eng., 300 Bway., Little Rock, Ark., construction, reconstruction aircraft parking apron, 2 new taxiways, 1 hangar, number and mark all airfield pavements, revise night lighting sys. $2,500,000.

Mass., Webster—WATER GAS TAR SEPARATOR—Worcester County Electric Co., 7 Main St., plans completed, 17 x 38 x 17 ft. water gas tar separator, rein.-con.

Minnesota—RURAL ELECTRIC SERVICE—Lake Region Cooperative Electric Assn., Pelican Rapids, rural electric service extens., (Minn. 57-Otter Tail) $211,000 REA allot.

Minnesota — RURAL ELECTRIC DISTRIBUTION SYSTEM—P. I. C. K. Cooperative Electric Assn., Braham (Minn-1-Kanabec), service extens. to rural electric distr. sys., Isanti Co. $40,000 REA allot.

Minnesota — RURAL ELECTRIFICATION—Wild Rice Electric Cooperative, R. K. Martin, mgr., Mahnomen, expan. rural electrification distr. sys., serving about 5,000 homes, Mahnomen Co. $100,000.

Minnesota—RURAL ELECTRIC SYSTEM—Steele Waseca Cooperative Electric Owatonna, service exten. in rural electric distr. sys., etc., Waseca Co. $218,000 REA allot.

Missouri—RURAL ELECTRIC LINES—Howard County Cooperative, Fayette, addnl. rural electric lines, Howard Co. $125,000 REA loan allot.

Missouri—RURAL ELECTRIC LINES—Howell-Oregon Cooperative, West Plains, addnl. rural electric lines, Howell Co. $125,000 REA loan allot.

Missouri—RURAL ELECTRIC LINES—Macon Electric Co-operative, Macon, addnl. rural electric lines, Macon Co. $150,000 REA loan allot.

Missouri—RURAL ELECTRIC LINES—Platte-Clay Electric Co-operative, Platte City, addnl. rural electric lines, Platte Co. $60,000 REA loan allot.

★†**N. M., Rosewell**—AIRFIELD IMPROVEMENTS—U. S. Eng., Albuquerque, reconstructing parking apron, installing apron flood lights, exten. north-south runway by 1,500 ft. on north end, constructing taxiway with shoulders, Roswell Army Air Field. $950,000.

Oklahoma—GAS PIPELINE CARRIER—Cities Service Gas Co., SE of city, Oklahoma City, imprv. 231 mi. natural gaspipe-line carrier between Guymon and Blackwell. Over $50,000.

★**South Carolina**—TRANSMISSION LINES—S. C. Public Service Auth., Moncks Corner, power transmission lines throughout state. $4,000,000.

Texas—TRANSMISSION LINES—Bowie-Cass Electric Co-operative, Douglassville, constructing rural electric power transmission lines, Cass and Bowie Counties. $50,000 REA allot.

Texas — PIPELINE — South Plains Line Co., Levelland, 16 mi. 4 in. crude oil steel welded joint pipeline betwen Levelland and Whiteface. $70,000.

Texas — RURAL ELECTRIC LINES — Houston County Electric Co-operative, Crockett, rural electric line extens., Houston Co. $100,000 REA allot.

Tex., Como—OIL PIPELINE—Gulf Refining Co., Port Arthur, 8 mi. 4 in. crude oil pipeline. $45,000.

Tex., Corpus Christi—PIER, etc.—G. W. Wilkinson, 3448 Ocean Dr., 600 ft. pier with 100x110 ft. bulkhead. Over $40,000.

†**Tex., Fort Sam Houston**—SWIMMING POOLS—U. S. Eng., Fort Sam Houston, 43x100 ft., rein.-con. enclosed heated swimming pool in 64x181 ft. masonry type bldg., Ser. W-41-154-45-170, $90,000; winterized swimming pool, $75,000.

†**Tex., Galveston**—FIGHTING COURSES, etc.—U. S. Eng., 606 Santa Fe Bldg., Galveston, constructing, altering village fighting courses and fortified areas, Army ground force installations. $50,000.

Wash., Deer Park—BIRD FARM—State Dpt. Game, D. Clarke, dir., Olympia, bird farm, near here. $50,000.

Wash., Seattle—CONDUITS—Seattle Transit System, Airport Way and Atlantic St., Zone 4, installing underground electrical conduits, 3 Ave. from James to Stewart Sts., Pike and Madison Sts. $100,000.

Wash., Yakima—RACEWAYS—State Dpt. Game, D. Clarke, dir., Olympia, 20 concrete raceways at fish hatchery. $33,000.

B. C., Ioco—TANK—Imperial Oil Co. Ltd., 56 Church St., Toronto, Ont., tank. $25,000.

Ont., Allandale—TRANSFORMER STATION——Hydro-Electric Power Comn., 620 University Ave., Toronto, transformer station and installing equip. $59,200.

Ont., Dunbarton—TRANSFORMER STATION—Hydro-Electric Power Comn., Ont., 620 University Ave., Toronto, transformer station and installing equip. $38,500.

UNCLASSIFIED (Proposed Work, Cont'd.)

Ont., Red Lake—AIRFIELD—Province of Ontario, Toronto, airfield, $150,000. Dpt. P. Wks., Toronto, engr.

Ont., Toronto—SHIPYARD REPAIRS—Northern Shipbuilding & Repair Co. Ltd., c/o J. A. McCleary, 33 Parkview Gardens, ship, tug and boat repair yard. $40,000.

Quebec—TRANSMISSION LINES—Co-operative Agricole d'Electricite, St. Basile le Grand, electric transmission lines, Chambly Co. $30,000.

BIDS ASKED

Bids Asked June 11

N. Y., New York—REPAIRING WALKS, etc.—Comr. Parks, at office Dpt. Parks, The Arsenal, Central Park, 64 St. and 5 Ave., Zone 21, repairing walks and steps in Bryant Park and New York Public Library, 5 to 6 Aves. between 40 and 42 Sts. Contr. M-8-145.

Bids Asked June 12

N. S., Halifax — GASOLINE SERVICES, etc.—Secy. Dpt. Munitions & Supply, Ottawa, Ont., gasoline and Diesel oil services, quay wall, Wharf Zero and Pier 4, at H. M. C. Dockyard, for Dpt. Natl. Defense (Sea), Ottawa, Ont. $30,000. CD 2/8.

Bids Asked June 13

N. S., Halifax—DOCKYARD BLDG.—Secy. Dpt. Munitions & Supply, Ottawa, Ont., Motor Transport Bldg. 95, H. M. C. Dockyard, for Dpt. Natl. Defense (Sea), Ottawa, Ont. $50,000.

Bids Asked June 14

†Mich., Pellston—AIRPORT LIGHTING—Civil Aeronautics Admin., 608 S. Dearborn St., Chicago 5, Ill., lighting at Emmet Co. Airport, Prop. 3-45-536. Plans deposit $10.

†Tex., Fort Worth—RUNWAY—U. S. Eng., 231 Main St., Denison, extra heavy duty concrete runway at Fort Worth Army Airfield, Ser. 34-066-45-58. CD 5/7—ENR 5/10.

†Tex., San Antonio — AUTOMATIC SPRINKLER SYSTEM — U. S. Eng., Fort Sam Houston, automatic sprinkler installations in warehouses and miscellaneous bldgs., Group B, San Antonio Army Service Forces Depot, Ser. W-41-154-45-176. CD 3/14—ENR 3/22.

N. S., Halifax—DOCKYARD BLDG.—Secy. Dpt. Munitions & Supply, Ottawa, Ont., Inflammable Stores Bldg. 57 at H. M. C. Dockyard, for Dpt. Natl. Defense (Sea), Ottawa, Ont. $60,000.

Bids Asked June 19

Wash., Pasco—SWIMMING POOL—City, City Hall, 105 x 75 ft. outdoor concrete swimming pool, with bathhouses under either end and 8 x 20 ft. waiting room at one end. $45,000. Plans deposit $100. W. Bintz, 215 Spencer St., Lansing 15, Mich., engr.

Bids Asked June 20

Del., Bethany Beach—BOARDWALK REPLACEMENT—State Hy. Dpt., F. V. duPont, chn., Dover, approx. 2,200 lin.ft. boardwalk replacement, Contr. 885, Sussex Co. W. W. Mack, Dover, ch. engr.; ad. ENR 6/7.

LOW BIDDERS

★**†Fla., Eglin Field (br. Crestview)**—RUNWAYS, etc.—U. S. Eng., Grant St. west of Westwood St., Mobile 7, Ala., addnl. runways, taxiways and aprons, access roads and drainage from Smith Engine Co. & Noonan Constr. Co., Pensacola, $1,000,000. CD 5/2—ENR 5/10.

†Mass., Westover Field (Sta. Chicopee Falls)—TAXIWAY RESURFACING—U. S. Eng., 31 St. James Ave., Boston, Zone 16, May 29, resurfacing soil cement taxiways, Westover Field, No. 19-023-45-Neg-139, from M. DeMatteo Constr. Co., 200 Hancock St., Quincy. $210,850. CD 5/24.

†N. J., Fort Dix (br. Trenton)—SWIMMING POOL, etc.—U. S. Eng., 120 Wall St., New York 5, N. Y., May 28, swimming pool and gymnasium, from McClain Constr. Co., 1516 Summer St., Phila., Pa., $117,700.

†Tex., Fort Sam Houston — RECREATIONAL FACILITIES—U. S. Eng., Fort Sam Houston, May 25, addnl. outdoor recreational facilities, for Brooke Convalescent Hospital, Ser. No. W-41-154-45-158, from Dean Word, P. O. Box 330, New Braunfels, $44,952.

†Tex., Fort Sam Houston—FIRE DOORS, etc.—U. S. Eng., Fort Sam Houston, May 28, installing fire exit doors and fire chutes on each of 106 convalescent hospital ward bldgs., Brooke Convalescent Hospital, Ser. No. W-41-154-45-153, from F. L. Scott & Son, 123 Beal St., San Antonio, $107,060. CD 5/18—ENR 5/24.

†Tex., Fort Worth—AUTOMATIC FIRE PUMP—U. S. Eng., 231 W. Main St., Denison, installing automatic fire pump control aircraft assembly plant, Ser. 34-066-45-55, from Fischback & Moore, Southland Life Bldg. Annex, Dallas, $119,000.

†Tex., Fort Worth—SPRINKLER SYSTEMS, etc.—U. S. Eng., 231 W. Main St., Denison, installing automatic sprinkler sys., etc. in warehouses, Ser. No. 34-066-45-19, from Texas Automatic Sprinkler Co., 2330 Summer St., Dallas, Sect. A, $79,000; Sec. B $68,000; Sect. C $68,000; from Automatic Sprinkler Co., Oklahoma City, Okla., Sect. D valve houses, $15,000.

†Tex., Houston—STORAGE YARD—Reconstruction Finance Corp., Rusk Bldg., May 23, storage yard, incl. paving, parking areas, loading dock on Holmes Rd., from Central Engineering Co., 1317 Jefferson St., $97,970. CD 5/25—ENR 5/31.

†Tex., Kelly Field—AUTOMATIC SPRINKLER SYSTEM—U. S. Eng., Fort Sam Houston, installing automatic sprinkler sys. in miscellaneous bldgs., Group D, Ser. W-41-154-45-150, from Automatic Sprinkler Corp. of America, 3923 McKinney St., Houston, $148,404. CD 5/23.

†Tex., Texarkana—SPRINKLER SYSTEMS—U. S. Eng., 231 W. Main St., Denison, sprinkler sys., Ser. 34-066-45-52, from Texas Automatic Sprinkler Co., 2330 Summer St., Dallas, approx. $28,000.

CONTRACTS AWARDED

†Ala., Montgomery — SPRINKLER SYSTEM — U. S. Eng., Grant St. west of Westwood St., Mobile, Zone 7, installing sprinkler sys. in Warehouses 1, 2, 3, 4, 5, and 6 at Montgomery Holding and Reconsignment Point Depot, to Evans-Hailey Co., Inc., 1610 West End Ave., Nashville, Tenn. $204,406. CD 4/11—ENR 4/19.

Arkansas—ELECTRIC POWER LINE—Ashley-Chicot-Union Electric Cooperative, Inc., Hamburg, 181 mi. electric power line serving 500 members, Ashley Co., to Delta Constr. Co., Clarksdale, Miss. $166,707. George C. Hengy & Co., 1104 City Bank Bldg., Shreveport, La., engrs.

†Calif., Muroc — FLIGHT TEST BASE WAREHOUSES, etc.— U. S. Eng., 751 S. Figueora St., Los Angeles, Zone 55, warehouses, addnl. officer housing at Flight Test Base, to Baruch Corp., 625 S. Olive St., Los Angeles, $138,045. Bids 5/24.

†Calif., San Bernardino—TEST TOWERS, etc.—U. S. Eng., 751 S. Figueora St., Los Angeles, Zone 55, test towers, magazines, No. 310, to Mead & O'Donnell, 7769 Melrose Ave., Los Angeles, $65,149.

†Calif., Santa Monica—AIRPORT BLDG.—U. S. Eng., 715 S. Figueroa St., Los Angeles, Zone 55, relocating training school at Santa Monica Municipal Airport, No. 259, to W. C. Beggs, 610 S. Bway., Los Angeles, $27,687. Bids 5/21.

★**Calif., Stockton**—TRANSIT SHEDS, etc. —Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash. 25, D. C., 6 new transit sheds, 8 storehouses, steel storage area, roads, and railroads at Naval Supply Depot, Rough and Ready Island, Spec. 16171, NOY 11902, to Kiewit, Johnson & Everest, Atlas Bldg., San Francisco, $4,700,000. CD 5/25, under LB.

Conn., Wallingford—PARK BLDGS., etc. —Wallingford Boro, Office Burgesses and Wardens, 1 story, 30 x 50 ft., brick field house, 20 x 35 ft., rein.-con. wading pool, Doolittle Park, to Fusco-Amatruda Co., Amity Rd., New Haven, $25,108. CD 3/16—ENR 3/22.

†Del., Dover—AIRFIELD FACILITIES—U. S. Eng., 120 Wall St., New York, N. Y., addnl. facilities at Dover Army Airfield, to Rupert Constr. Co., 1509 French St., Wilmington, $79,101. Awarded 5/24. Albright & Friel, 1520 Locust St., Phila., Pa., engrs.-archts. CD 4/30—ENR 5/10.

†Fla., Miami—AIRPORT HOUSING—U. S. Eng., Post Office Bldg., Savannah, Ga., housing at 36 St. airport, to Lester F. Preu, 1440 Alton Rd., Miami Beach, $52,762.

†Kan., Topeka—RECREATIONAL FACILITIES—U. S. Eng., 10 E. 17 St., Kansas City 8, Mo., recreational facilities at Winter General Hospital, incl. athletic field, baseball diamond, tennis courts, etc., to Martin K. Eby Constr. Co., 311 E. Murdock St., Wichita, $28,880.

Louisiana—ELECTRIC POWER LINES—Claiborne Electric Co-operative, Inc., Homer, 125 mi. electric power lines serving 348 members, to Stuart C. Irby Co., 815 S. State St., Jackson, Miss. $86,706. Geo. C. Hengy & Co., 704 City Bank Bldg., Shreveport, engrs. CD 9/20—ENR 9/28.

La., New Orleans—AIR CONDITIONING SYSTEM — Consolidated Vultee Aircraft Corp., 7020 Franklin Ave., installing air conditioning sys. in administration bldg., to American Heating & Plumbing Co., 829 Baronne St., $42,000. Awarded 5/30. CD 3/26—ENR 3/29.

Mass., Brimfield — SWIMMING POOL — Springfield Boy's Club, 260 Chestnut St., 42x160 ft., rein-con. swimming pool, to E. J. Pinney Co., Inc., 220 Dwight St., Springfield. Est. $35,000. Bids 5/26. CD 5/25—ENR 5/31.

†Mass., Fort Devens—SWIMMING POOL—U. S. Eng., 31 St. James Bldg., Boston, Zone 16, swimming pool, No. 19-023-45-Neg-138, to John Bowen Co., 129 Newbury St., Boston, $47,725. Est. $50,000. Bids 5/25.

†Mass., Framingham—SWIMMING POOL—U. S. Eng., 31 St. James Ave., Boston, swimming pool, No. 19-023-45-Neg-135, to Frankini Constr. Co., 30 Mystic Ave., Medford, $52,844. Bids 5/23.

★**Missouri and Illinois**—OIL PIPELINE—**Texas Empire Pipe** Line Co., Philtower Bldg., Tulsa, Okla., pipeline between Sheldon, Mo. and Heyworth, Ill., laying 35.8 mi. 12 in. steel pipe, welded joint crude oil pipe (loop) lines, to H. C. Price Co., Bartlesville, Okla., $960,000; 18 mi., to Sheets Pipe Line Constr. Co., National Bank Tulsa Bldg., Tulsa, Okla., $618,000; 72.6 mi., to Williams Bros. Corp., National Bank Tulsa Bldg., Tulsa, Okla., $2,100,000; 36 mi., to Sooner Constr. Co., Sheldon, Mo., $1,140,000. Grand total $4,818,000. CD 5/4—ENR 5/10.

Missouri — ELECTRIC POWER LINE—Barton County Electric Co-operative, Lamar, 46.5 mi. electric power line serving 1[illegible] members, Barton Co., to J. R. Foree, 42[illegible] Rockledge St., Topeka, Kan., $52,842. Frank Horton & Co., Lamar, engrs. CD 10/11—ENR 10/19.

Missouri—ELECTRIC POWER LINES—New-Mac Electric Co-operative, Inc., Neosho, 43.8 mi. electric power lines serving 1[illegible] members, Newton Co., to Killoren Electric Co., Appleton, Wis. $49,947. Frank Horton & Co., Lamar, engrs.

Missouri—ELECTRIC POWER LINES—Ozark Electric Co-operative, Mt. Vernon, [illegible] mi. electric power lines serving 227 members, Lawrence Co., to J. R. Foree, 42[illegible] Rockledge St., Topeka, Kan. $96,696. Frank Horton & Co., Lamar, engrs.

Ohio—ELECTRIC POWER LINES—Washington Electric Cooperative, Inc., 185 Front St., Marietta, 88 mi. electric power line serving 221 members, Washington Co., to D. & W. Constr. Co., 2119 Cleveland Ave., Columbus, $83,781. Ralph L. Woolpert Co., 132 N. Main St., Dayton, Zone 20, engrs.

Pennsylvania—RURAL ELECTRIC LINES—Valley Rural Electric Co-op. Inc., J. H. Benton, mgr. Huntingdon, 48 mi. rural electric lines, farm connections, near Huntingdon, Blair Co., to H. D. Blattenberger, Martinsburg. Est. $60,000. Gibbs & Hill, Inc., Pennsylvania R. R. Sta., New York, N. Y., engrs.

Texas—PIPELINE—Magnolia Pipe Line Co., Magnolia Bldg., Dallas, reconditioning, welding 37 mi. 8 in. pipeline between Alvord and Fort Worth, to Oklahoma Contg. Co., Magnolia Bldg., Dallas, $76,000.

Texas—RURAL ELECTRIC LINES—Upshur Rural Elec. Cooperative Corp., Gilmer, 138 mi. rural electric lines, Upshur Co., to Electric Contrg. Co., Crescent Rd., Shreveport, La., $99,422. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

†Tex., Fort Sam Houston — AUTOMATIC SPRINKLERS—U. S. Eng., Fort Sam Houston, automatic sprinkler installation in bldgs. other than wards, (Group B), for Brooke Convalescent Hospital, Ser. W-41-154-45-151, to Automatic Sprinkler Corp. of America, 3923 McKinney St., Houston, $54,838. CD 5/18.

Tex., Houston—CRUSHER PITS—Rheem Mfg. Co., 1401 Lockwood St., crusher pits, incl. excav., back fill, underground conduit, concrete fdns., etc., to Texas Gulf Constr. Co., P.O. Box 661, $41,000.

Tex., Longview—AIRPORT BLDG.—Gregg Co., c/o Judge, Courthouse, airport administrative bldg. and control tower, to H. L. White, Tyler (on alternates) $166,850. Bids 5/19. CD 5/8—ENR 5/10.

†Tex., Temple—PLAYGROUNDS, etc.—U. S. Eng., Fort Sam Houston, outdoor playgrounds, recreational facilities, etc., at McCloskey General Hospital, Ser. No. W-41-154-45-142, to Holland Page, Georgetown Rd., Austin, approx. $25,000. Bids about 5/20.

Utah—PIPELINE—Utah Oil & Refining Co., Utah Oil Bldg., Salt Lake City, Utah, reconditioning and somastic coating 25 mi. 8 in. steel crude oil pipeline, Davis Co., to Industrial Engineering Co., Kayville, $66,000.

†Va., Staunton—SWIMMING POOL—U. S. Eng., First and Douglas Sts, N.W., Wash. 25, D. C., swimming pool at Woodrow Wilson Hospital, to Castle Constr. Co., Grattoon, $69,437.

Wash., South Wenatchee—SPUR TRACK—Great Northern Ry. Co., C. M. Nye, ch. engr., 175 E. 4 St., St. Paul 1, Minn., 2,480 ft. spur track exten. at Appleyard, day labor, $28,100. CD 5/23—ENR 5/31.

Wash., Tacoma—TRANSMISSION LINE—City, City Hall, 110 kv. transmission line from Cushman Substation to S. 65 St. switching station, own forces. $81,300. CD 4/11—ENR 4/19.

Newfoundland, St. Johns—WHARF SERVICES—Dpt. Munitions & Supplies, Ottawa, Ont., wharf services, Sites 10 and 17, to Canadian Comstock, Ltd., 1010 St. Catherine St. W., Montreal, Que., $38,000. Bids 4/14. CD 3/16—ENR 3/22.

Quebec—POWER TRANSMISSION LINE—Gatineau Power Co. Ltd., 140 Wellington St., Ottawa, Ont., power transmission line from Calumet to Jerome St., own forces, $390,000.

Proposal Advertisements see p. 23